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Sea piracy in Southeast Asia implications for countering maritime terrorism in the United States

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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**SEA PIRACY IN SOUTHEAST ASIA:
IMPLICATIONS FOR COUNTERING MARITIME
TERRORISM IN THE UNITED STATES**

by

John Michael Lewis Geragotelis

June 2006

Thesis Advisor:	Michael Malley
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REPORT DOCUMENTATION PAGE		*Form Approved OMB No. 0704-0188*
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.		
1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** June 2006	**1. AGENCY USE ONLY** *(Leave blank)*
4. TITLE AND SUBTITLE Sea Piracy in Southeast Asia: Implications for Countering Maritime Terrorism in the United States		**5. FUNDING NUMBERS**
6. AUTHOR(S) John Michael Lewis Geragotelis		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		**10. SPONSORING/MONITORING AGENCY REPORT NUMBER**
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.		
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		**12b. DISTRIBUTION CODE**
13. ABSTRACT (maximum 200 words) Sea piracy has infested the seven seas throughout history. In modern times, the United States has paid little attention to piracy because the nation's isolated vastness has protected the shipping industry from maritime crime. But the events of 9/11 have changed the lens through which America views security. This thesis investigates modern day piracy and links between piracy and terrorism in order to determine implications for U.S. maritime security strategy. Specifically, the maritime environment in Southeast Asia and associated maritime security policies are researched because a sizable proportion of the world's sea piracy occurs in that region. U.S. maritime security policy is also evaluated.		
14. SUBJECT TERMS Sea Piracy, Southeast Asia, Maritime Security, Maritime Terror		**15. NUMBER OF PAGES** 151
		16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT Unclassified	**18. SECURITY CLASSIFICATION OF THIS PAGE** Unclassified	**19. SECURITY CLASSIFICATION OF ABSTRACT** Unclassified	**20. LIMITATION OF ABSTRACT** UL

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SEA PIRACY IN SOUTHEAST ASIA: IMPLICATIONS FOR COUNTERING MARITIME TERRORISM IN THE UNITED STATES

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

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ABSTRACT

Sea piracy has infested the seven seas throughout history. In modern times, the United States has paid little attention to piracy because the nation's isolated vastness has protected the shipping industry from maritime crime. But the events of 9/11 have changed the lens through which America views security. This thesis investigates modern day piracy and links between piracy and terrorism in order to determine implications for U.S. maritime security strategy. Specifically, the maritime environment in Southeast Asia and associated maritime security policies are researched because over the past 12 years, nearly fifty percent of the world's sea piracy has occurred in that region. The U.S. maritime security strategy is also evaluated so that informed policy recommendations can be formulated.

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ACKNOWLEDGMENTS

Naval Postgraduate School professors and advisors who sincerely cared about teaching.

International and inter-service classmates who taught me about their interesting cultures.

Great new friends who made this tour memorable.

And my wife, who has never failed to inspire me.

Thank you all, it is a true honor to defend America and its allies.

An honorable Peace is and always was my first wish! I can take no delight in the effusion of human Blood; but, if this War should continue, I wish to have the most active part in it. John Paul Jones

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I   INTRODUCTION

On today's globalized planet, the vast oceans and crowded littoral waters present a dichotomy of essential personal and economic sustenance on the one hand, and on the other, the very real security challenge of immense areas of ungoverned or weakly controlled space. For both dimensions of the challenge, maritime security is essential.[1] Admiral William J. Fallon, United States Pacific Command.

A.   IMPORTANCE OF STUDYING SEA PIRACY

On 26 March 2003 off the coast of Sumatra, ten pirates approached in a speedboat and boarded the chemical tanker, *Dewi Madrim*. Armed with machine guns and communicating via VHF handsets, the pirates disabled the ship's radio and took the helm, steering the vessel on different courses and speeds for an hour. The gang departed with cash, equipment and technical documents. The captain and first officer were kidnapped; their fate remains unknown.[2]   Just another case of the economic piracy that has plagued Southeast Asian seas for centuries, or rehearsal for something much more sinister? The argument of this thesis is that piracy tactics and trends represent a legitimate homeland security concern for the United States which must be addressed when developing maritime counter-terrorism policy.

The primary purpose of this thesis is to investigate modern day piracy and links between piracy and terrorism in order to determine implications for U.S. maritime security strategy and policy. Specifically, activities in the waters of Southeast Asia and associated maritime security policies will be researched because over the past 12 years nearly 50 percent of the world's sea piracy occured in that region.[3] The main concern of this thesis will be the relationship between the tactics used by sea pirates and the threat of maritime terror, and whether or not that relationship is relevant to U.S. maritime security. This thesis

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[1] William Fallon (Speech at Shangri La Dialogue, Singapore, 23 June 2005).

[2] "Peril on the Sea," *The Economist,* 2 October 2003.

[3] International Chamber of Commerce, *Piracy and Armed Robbery Against Ships, Annual Report* (Barking, UK: International Maritime Bureau, 2005).

will also assess the security polices emplaced to prevent piracy and maritime terrorism in Southeast Asia, and the implications for U.S. maritime security policy.

This research will contribute to policy debates about the threat of maritime terrorism and the viability of maritime counter-terrorism policies and initiatives. Southeast Asian maritime security policy is important to the United States because of U.S. economic and strategic interests in the region. While the primary objective of U.S. maritime security is to prevent a maritime terrorist attack, the prevalence of piracy events in Southeast Asia affords ample opportunity to analyze counter-piracy measures in force. The analysis will help characterize pirate and terrorist tactics, many of which are shared, that can be effectively conflated under maritime security policy. Addressing the pros and cons of combating piracy and maritime terrorism with the same policies is important for U. S. maritime security policy which aims to combat both threats.

In addition to a functional comparison of piracy and maritime terrorism, a study of the Southeast Asian maritime environs will be important to U.S. maritime security strategists. Geographically, the Straits of Malacca and Singapore are shipping chokepoints, not unlike the narrows leading into major U.S. ports such as Seattle and San Francisco. An investigation of the tactical issues relating to channel security will benefit U.S. Coast Guard and harbor authorities. Unlike military forces and law enforcement agencies in the straits of Southeast Asia, U.S. maritime security forces have no territorial constraints with which to contend. Nonetheless, jurisdictional authority between America's law enforcement agencies is not black and white. America's long coastlines differ from the islands and shores of Southeast Asia which provide fertile and secluded habitat for pirates. But the isolated vastness which has helped keep America's shipping industry safe from commercial piracy may prove an inconsequential deterrent, or even an accommodation, for a maritime terrorist. U.S. law enforcement agencies may not have to worry about a plague of piracy, but

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instances of maritime narcotics and human smuggling, especially near the northern and southern border-coastlines, serve as sufficient reminders that America's coasts are not impenetrable.

There are other benefits to studying maritime security efforts in a region which has considerable pirate activity. Technically, a study of security efforts in Singapore, one of the world's major and most modern shipping ports, may yield direct implications for U.S. port authorities. Some of Singapore's security endeavors, such as participation in the Container Security Initiative (CSI), are comparable to U.S. port security measures. Politically, security in Southeast Asia is complicated by regional and international relations. Clearly, U.S. maritime security policies are unilateral at the last line of defense, America's coastline. However, the first layer of defense *is* the foreign seaport. It serves the direct interest of the United States to understand the security situation in Southeast Asia, especially since a substantial amount of incoming cargoes and vessels originate in that region.

B.   PIRACY AND MARITIME TERRORISM IN SOUTHEAST ASIA

Chapter II of this thesis studies sea piracy and maritime terrorism in Southeast Asia. Piracy in Southeast Asia dates back to the earliest maritime kingdoms and has long been a part of economic and political rivalries. Nearly eradicated during the nineteenth century by the colonial powers, economic pirating has made a dramatic comeback in recent years. Though exact piracy statistics vary, the trend of attacks has generally increased in number and in violence over the past 5 to 10 years, with much of the upsurge attributed the Asian financial crisis. By far, the two most common types of piracy are in-port theft of the opportunistic nature and at-sea "hit and run." Pirate gangs have undertaken short duration hijacks and long-term ship seizures, representing more serious but less frequent events.[4]

In the past few decades the seas of Indonesia, the Philippines, and Thailand have witnessed the greatest number of attacks. In the past when the

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[4] Carolin Liss, "Maritime Piracy in Southeast Asia," *Southeast Asian Affairs* (2003): 54-63.

primary fear was loss of property, piracy in Southeast Asia was played down in importance except by those directly affected, including the shipping and insurance businesses. But the upward trends in violence which started in the mid-1990s have prompted concern. Besides the threat of maritime terrorism, other related concerns also sprouted, such as environmental disaster. International tension has also been present, particularly in areas of state sponsored piracy or disputed waters such as the South China Sea.

Contrary to the prevalence of piracy, maritime terrorism has been infrequent. Even on the international scale, maritime terrorist events such as the hijacking of the cruise liner, *Achille Lauro,* in 1985, and the attacks on the *USS Cole* and French tanker, *MV Limburg,* in 2000 and 2002 respectively, have been relatively rare.[5] However, the concern for maritime terrorism in Southeast Asia is genuine. In the Straits of Malacca or Singapore, an extraordinary terrorist incident could have devastating regional and global economic consequences.

As opposed to pirates who seek economic gains, maritime terrorist events are motivated more by political objectives. On one side of the debate, scholars concede that piracy and terrorist tactics may overlap. As example in Southeast Asia, secessionist groups have been suspected of using maritime kidnapping and ransom to raise funds. Still, scholars point to the distinction in objectives - *terrorists aim to inflict harm and call attention to their cause while pirates seek to avoid attention and inflict harm only as necessary to complete their mission* - as the major reason why the threat of maritime terrorism should not be directly linked to the increased piracy threat.[6]

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[5] The French tanker MV Limburg was rammed with a explosive-laden small-craft in the Gulf of Aden, Yemen in 2002, with in one week of the anniversary of the attack on the USS Cole. Adam Young and Mark Valencia, "Conflation of Piracy and Terrorism in Southeast Asia: Rectitude and Utility," *Contemporary Southeast Asia* 25, no. 2 (August 2003): 270-76.

[6] The preponderance of academic literature researched claims that "motive" distinguishes modern day pirates from terrorists. Four examples are cited here: Liss, "Maritime Piracy," 64; Vijay Sakhuja, "The Sea Muggers are Back in the Malacca Straits," *South Asia Analysis Group Paper*, no. 1300 (23 March 2005); Michele Piercey, "Piracy and the Risks of Maritime Terrorism: How Significant are These Threats?" *Australian Command and Staff College Geddes Papers*, (2004): 64; Graham Ong, "Ships Can Be Dangerous Too: Coupling Piracy and Maritime Terrorism in Southeast Asia's Maritime Security Framework," *Institute of Southeast Asian Studies Working Paper: International Politics and Security Issues*, no. 1 (2004): 14.

On the other hand, piracy in Southeast Asia is likely to continue and recent trends of violence and kidnap-for-ransom may serve as a portent of maritime terror. Terrorist groups are unpredictable and should not be underestimated. Al Qaeda, which targeted the *USS Cole* and the *MV Limburg* off of Yemen, has connections to terrorist groups in Southeast Asia and is believed to own a number of freighters.[7] Al Qaeda is suspected of having a maritime terror strategy that includes use of diving, various gases, and surface attacks. In 2001, the Southeast Asian regional terrorist group, Jemaah Islamiyah (JI), planned to attack a U.S. warship docked in Singapore. In 2004, the Abu Sayyaf group (ASG) was responsible for the bombing of *Superferry 14* in Manila Bay, killing approximately 100 people. As states tighten land and air transportation security and crackdown on sponsorship of terrorism, terrorists may turn increasingly to the maritime domain to raise monies and avoid law enforcement, and the success of Southeast Asian pirates may influence partnerships.[8]

A serviceable nexus between pirates and terrorists is unproven, but the link between piracy and terrorism tactics is a definite concern for Southeast Asian security strategists. Additionally, as terrorists seek to diversify operations in the future, tangible links may develop. Piracy may play a facilitating role if terrorists seeking expertise in the maritime theater collaborate and cooperate with sea pirates to conduct attacks against critical economic and political targets. The plausible links between piracy and maritime terror create implications for maritime security that can not be ignored when devising security policies in Southeast Asia and the United States.

C. MARITIME SECURITY IN SOUTHEAST ASIA

Chapter III of this thesis researches maritime security in Southeast Asia. The post 9/11 anxiety over terrorism coupled with the potential threat posed by maritime terrorists has heightened state concerns over piracy and enhanced

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[7] Gal Luft and Anne Korin, "Terrorism Goes to Sea," *Foreign Affairs* 83, no. 6 (November/December 2004).

[8] Catherine Raymond, "Maritime Terrorism in Southeast Asia: A Risk Assessment," *Institute of Defense and Strategic Studies*, no. 74 (March 2005): 12-29.

regional maritime security in general.[9] At the heart of the maritime security question in Southeast Asia, is whether or not counter-piracy and counter-maritime terror policies can or should be conflated. Piracy and terrorism have many different causes, objectives, and tactics and thus may require different responses. Even the efforts to define the two acts have been problematic for international policymakers and lawmakers alike. If piracy and terrorism are fused together into a general maritime security threat, smaller and developing states may benefit from international counter-terrorism efforts. But common piracy and armed robbery, which accounts for approximately 90 percent of Southeast Asia's maritime crime, may not be covered by international conventions such as the International Maritime Organization's (IMO) Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA). Other issues such as joint jurisdiction and appropriate use of force also remain for the most part undecided. Some scholars argue that while measures aimed at operational similarities may be effective in the short-term, long-term solutions aimed at eliminating the root causes of piracy and maritime terrorism must be unique.[10]

Other scholars admit that long-term solutions aimed at eliminating piracy and terrorism have not been applied, but contend that the immediacy of both threats demands a decisive and integrated maritime security strategy. First, cooperative efforts will benefit resource-limited states. Second, the complications involved in the legal aspect of coupling piracy and terrorism have been overstated. Formalizing security agreements to counter piracy and terrorism will create beneficial operational links between Southeast Asian forces and blue water navies. The real challenge is not in the coupling of the two crimes, but rather in the development of arrangements that alleviate suspicion and foster cooperation.[11]

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[9] William Carpenter and David Wiencek, eds., *Asian Security Handbook* 3rd ed. (Armonk, New York: M.E. Sharpe, 2005), 18.

[10] Young and Valencia, 276-280.

[11] Ong, "Ships Can Be Dangerous Too," 18-20.

D.   MARITIME SECURITY IN THE UNITED STATES

Chapter IV of this thesis offers an overview of U.S. maritime security. The attack on the *USS Cole* coupled with the ingenuity of the 9/11 terrorist attacks one year later, have opened America's eyes to the unimaginable. One of the United States' worse fears is that maritime terrorists will hijack a supertanker and detonate it in port. The psychological and economic consequences from a supertanker, cruise liner or smuggled WMD exploding in a major city harbor could be disastrous. Even if terrorists use more traditional methods, such as ramming a small, explosive-laden boat into a liquid natural gas tanker, the attack could be cataclysmic.

The U.S. charter for ensuring maritime security under the 2005 *National Strategy for Maritime Security* (NSMS) is immense in scope. The NSMS seeks to protect *all* the world's maritime trade from *all* threats. In addition to preventing maritime terror, the NSMS specifically aims to curtail piracy and maritime crime in hope of severing any tactical or financial links to terrorism.[12]   Much of the debate in Washington DC centers on the extent to which prevention must rely on technical solutions versus intelligence gathering and sharing, as well as cooperative and jurisdictional issues. Historically, piracy has attracted little interest in U.S. maritime security policy even though a small number of U.S. flagged ships have been pirated in Southeast Asian waters.[13]   Though economic piracy has not plagued American shores, incidences of black marketing, narcotics trafficking, and human smuggling may point to vulnerabilities in our coastal defenses similar to the vulnerabilities of Southeast Asia.

E.   THESIS METHODOLOGY

This thesis will undertake a qualitative, historical study of piracy in Southeast Asia over the past 10 to 15 years in order to determine (1) tactical trends in piracy; (2) tactical relationships or similarities between piracy and

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[12] *National Strategy for Maritime Security* (Washington, DC: Office of the President, 2005), 5.

[13] As example, the U.S. flagged tanker, *Ranger*, was boarded and robbed of $23,000 of Singapore in 1991 and the *Falcon Countess* lost $19,000 in 1984 while transiting the Malacca Straits. William Carpenter and David Wiencek, eds., *Asian Security Handbook 2000* (Armonk, New York: M.E. Sharpe, 2000), 95.

maritime terrorism; and (3) major issues involved with piracy and maritime terror that must be addressed by Southeast Asian proposed and enacted security policies. This thesis will study the individual and cooperative efforts of Southeast Asian states in combating piracy and maritime terror, in attempt to determine the effectiveness of current policies in dealing with piracy and maritime terror issues. This thesis will then review U.S. maritime security strategy to determine security concerns which parallel those of Southeast Asia. Finally, policy implications for the NSMS will be drawn.

This study will not attempt to situate maritime security policies in the totality of the U.S. counter-terrorism strategy, but rather will address the maritime environment on a unitary level, acknowledging that it is just one critical component of the homeland defense and security effort. This study will not provide a detailed analysis of international law. The focus will be on the conceptual and procedural measures involved in the development of maritime security policy, rather than the legal aspects of prosecuting perpetrators. Similarly, this thesis will not focus on the consequence management of maritime terror. Although response and recovery are important components of security policy, the focus of this thesis will be on prevention measures.

II.   PIRACY AND MARITIME TERRORISM IN SOUTHEAST ASIA

Figure 1.   Southeast Asia (CIA.GOV Publications/Maps, accessed June 2006)

This chapter will address piracy and maritime terror in general terms to familiarize readers with both phenomena. For case study, Southeast Asia will be analyzed because its maritime domain provides a historical perspective and modern day view of piracy. Southeast Asia's generous amount of piracy acts comprises a wide range of tactics, allowing for a trend analysis. Significant worldwide piracy events and trends will be compared to the Southeast Asian situation to ensure that the main aspects of piracy have been studied prior to discussion on maritime security policies in follow-on chapters.

Maritime terrorism will be studied, also with focus on Southeast Asia. Maritime terror attacks occur far less frequently than pirate attacks, so the subject will be approached from a more narrative than analytical angle. The fact that a number of known terrorist groups reside in Southeast Asia has stimulated plenty of discussion with regard to maritime terror. Accordingly, a variety of maritime terror scenarios, along with vulnerabilities and threats, will be presented. Finally, this chapter will deduce the analyses of piracy and maritime terror into a list of significant issues which will serve as a basis for evaluating Southeast Asia's maritime security policy in Chapter III.

A.   PIRACY

As long as valuables have been transported by sea, pirates have been around to steal them. Rome was the first naval power to devise a successful anti-piracy plan. In 67 B.C., Pompey the Great created a maritime patrol force to protect Roman commerce. Years later, in 10 A.D., Emperor Augustus applied Rome's full naval power against the maritime scourge, effectively negating the pirate threat in the Mediterranean for the next three hundred years. Historians have written much about the pirates of the sixteenth and seventeenth century. Names such as Henry Morgan, Blackbeard (Edward Teach), and Captain William Kidd are prominent in many a swashbuckling tale. Most pirates of this genre were originally privateers, commissioned (primarily by the English) to seize the gold-laden Spanish ships en route to the New World. When the conflict between England and Spain ended in 1692, privateers who wished to maintain their

seafaring lifestyles were forced to expand their activity. Hence the "Golden Age of Piracy" (1692-1725) was born, spreading from the Caribbean to the Indian and Pacific Oceans, and even the Red Sea.[14]

Pirates of the Golden Age attacked towns as well as ships. If their catch was merchandise rather than precious metals or coin, pirates employed land-based fences, many legitimate, to broker the loot. Over time the Golden Age of Piracy died out as naval forces grew, merchant ships carried less treasure and more arms, and a series of pardons were offered to pirates to quit their ways. But piracy did not die. Except for a brief respite during World War II, the threat of piracy has remained. In recent years, the piracy threat off the coasts of Southeast Asia, Africa, and South America has even elevated. Modern pirates are often skilled, violent, and connected to shore-based organized crime.[15] There is nothing golden about today's piracy.

1. Defining Modern Day Piracy

Most scholars define piracy as a criminal tactic that targets maritime resources, trade, or personnel *for economic interests* (financial gain). According to the 1982 United Nations Convention on the Law of the Sea (UNCLOS), piracy is *"any illegal act of violence, detention, or any act of depredation, committed for private ends … on the high seas against another ship … outside the jurisdiction of any state."*[16] The International Maritime Organization, an organ of the United Nations established in 1948, recognizes the UNCLOS definition of piracy. Additionally, the Maritime Safety Committee of the IMO, has defined armed robbery against ships as *"any unlawful act of violence or detention or any act of depredation, or threat thereof, other than an act of 'piracy,' directed against a ship or against persons or property on board such ship, within a State's jurisdiction over such offences."*[17]

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[14] Jack Gottschalk and Brian Flanagan, *Jolly Roger with an Uzi* (Annapolis: Naval Institute Press, 2000), 1-5.

[15] Gottschalk, 10-20, 84.

[16] Carpenter, *Asian Security Handbook 2000*, 91.

[17] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

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The International Chamber of Commerce (ICC) established an International Maritime Bureau (IMB) in 1981 to act as a focal point for countering all maritime crime and malpractice. The IMO has urged all governments, interests, and organizations to cooperate and exchange information with the IMB.[18] As such, the IMB is the world's foremost agency for exchanging and compiling information on maritime crime. The IMB defines piracy and armed robbery as *"an act of boarding or attempting to board any ship with the apparent intent to commit theft or any other crime and with the apparent intent or capability to use force in the furtherance of that act."* The most obvious difference between the UNCLOS and IMB definitions is that the IMB makes no territorial distinctions.[19] The IMB has categorized armed robbery and piracy together so that the practical threat of piracy may be accounted for as accurately as possible. Technically, if an attack occurs within the territorial jurisdiction of a state, the event is only classified as piracy if that nation's penal code criminalizes it as such. But for the purposes of reporting, the broad IMB definition allows for a more comprehensive picture of maritime crime. Acknowledging the legal distinction between piracy and armed robbery, this thesis will follow the IMB standard of combining the two incidents and the practice of interchanging both terms.

In 1992, the IMB established a Piracy Reporting Center (PRC) in Malaysia specifically to combat the alarming increase in piracy, especially in Southeast Asia. The PRC's key functions include (1) issuing daily status reports on piracy and armed robbery; (2) reporting piracy and armed robbery at-sea incidents to law enforcement and the IMO; (3) facilitating the apprehension of pirates via communication and coordination with authorities; (4) providing assistance to ship-owners and crews whose vessels have been attacked; and (5) publishing a weekly piracy update and comprehensive quarterly and annual reports.[20]

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[18] IMO Resolution A 504 (XII) (5) and (9) , 20 November 1981. Ibid., 2; "Piracy and Armed Robbery at Sea," *Focus on IMO* (January 2000), 7-8.

[19] Ibid.

[20] The PRC system is based on reported incidents only. International Maritime Bureau, Piracy Reporting Center at <www.icc-ccs.org/prc/services.php> accessed May 2006.

There are five main types of piracy currently occurring in waters around the globe:[21]

1) *Thefts and attacks on vessels at anchor or pier side*. A common type of attack is low-level armed robbery that occurs while ships are docked or moored. Perpetrators, normally armed with small arms or knives, approach via small, high speed boats, seeking cash or other high-value personal items.

2) *Robbery of vessels at sea*. Piracy at sea typically involves more violence because crews are detained while the attackers ransack the vessel. These type of attackers are usually well-armed and well-organized.

3) *Hijacking of vessels*. Most hijacked vessels are converted for illegal trade. The hijacked vessel's cargo is offloaded and sold (or used by the pirates themselves). The vessel is then falsely re-registered and issued fraudulent documents, enabling the on-load of new cargo, which in turn is usually sold on the black market. This type of "phantom ship" operation is typically perpetrated by highly trained and heavily armed pirate groups.

4) *Yacht Piracy*. "Yachtjacking" is an attack against a private vessel, targeting cash and marketable merchandise. This type of piracy is most common in seas where numerous private, well-stocked yachts sail, for instance the Caribbean.

5) *Kidnap-for-ransom.* Pirates board a vessel for robbery but also kidnap senior crew members. Later, ransom is demanded from ship owners in exchange for safe return of the crew members. This type of piracy is normally conducted by well-organized groups such as pirate gangs, criminal syndicates, or terrorist groups.

2. Consequences of Modern Day Piracy

The consequences of piracy can be assessed on different levels. On the individual level, piracy is a direct threat to lives and welfare of all seafarers, including professional and recreational. From 1991 to 2001, 2,058 mariners were taken hostage, 280 were killed, 275 were injured, and 157 assaulted.[22] However, the human cost of pirate attacks is rarely the motivation behind policy or publicity for two reasons. Firstly, pirate attacks usually are directed at low-

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[21] Except type number 5. Peter Chalk, *Non-military Security and Global Order* (New York: St. Martin's Press, 2000), 58-59.

[22] Peter Chalk, "Piracy Emerges as Modern-day Threat," *Jane's Navy International*, 1 May 2002.

visibility targets in areas of the world which piracy is already reputed.[23]   The shock effect of pirates harming a crew of maritime merchants off the coast of Africa pales in comparison to a group of terrorists hijacking a passenger plane. Secondly, pirates are normally after economic gains. Though pirates sometimes resort to violence in the accomplishment of their goals, violence is neither their primary motivation nor aim.

On the economic level, piracy has definite consequences. The tangible losses due to piracy are relatively insignificant. A 1997 estimate placed material costs at just under $73 million.[24]   The entire toll is more difficult to calculate because in addition to material losses there are immeasurable costs including missed business opportunities, out of commission crews and ships, and elevated insurance and security requirements. The Asia Foundation estimated total global costs as high as $16 billion per year.[25]   Other estimates of the economic impact of piracy are as low as $1 billion per year.[26]   If other maritime crime - merchandise smuggling, narcotics trafficking, arms dealing, etc. - is grouped with piracy, the economic cost is much higher.

Piracy can also have other negative effects. Many fear that environmental consequences are potentially disastrous. If pirates attack an oil tanker and set the ship adrift (crew incapacitated or forced overboard) on a congested trade route, a high potential for environmental disaster could exist.[27]   Piracy can also have political impacts when it involves instances of state sponsorship, law enforcement complicity, governmental corruption, or military participation.[28]

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[23] Chalk, *Non-military Security*, 66.

[24] "Costs of Maritime Terrorism and Piracy and the Benefits of Working Together," in *Proceedings of APEC High-Level Meeting on Maritime Security and Cooperation* (Manila: Australia Department of Foreign Affairs and Trade, September 2003).

[25] Estimates for Malacca Strait traffic range from 50,000 ships per year to 200 ships per day (73,000). 50,000 per year is presented as a conservative estimate. "IMO to Take Straits Initiative," *Proceedings from Council*, 93rd Session, 15-19 November 2004; James Carafano and Alane Kochems, eds., "Making the Sea Safer," *Heritage Foundation Working Paper* (2005): 15.

[26] Chalk, "Piracy Emerges."

[27] Chalk, *Non-military Security*, 67.

[28] Chalk, "Piracy Emerges."

B.   PIRACY IN SOUTHEAST ASIA

Throughout recorded history, Southeast Asia has been notoriously plagued with pirates. However, it was the nineteenth century when the East Indies spice trade reached its peak, European and Chinese trade mushroomed, and Japan opened to Western commerce, that piracy around the Malacca Straits reached a pinnacle. In the early twentieth century, piracy declined in Southeast Asia when modern imperial navies exercised their substantial upper hand to control the seas. Though always present at some level, the rise of piracy at the end of the last century is well documented. The numerical rise of incidences may now be leveling or reversing, but the characteristics of many of the attacks have signaled a disturbing trend of violence.

1.   The Rise of Modern Day Piracy

The 50,000-plus ships per year which transit the Malacca Straits provide ample and lucrative targets for pirates. The traffic congestion facilitates pirate approach and cover.[29] Between 1991 and 2001, Southeast Asia accounted for fifty-seven percent of all reported pirate attacks, actual and attempted. The massive increase in commercial traffic during the 1990's globalization boom, combined with hard-to-police shorelines, may explain the regional concentration. Another contributory factor may have been the termination of the Cold War which reduced the number of superpower and Western naval vessels in Southeast Asia while simultaneously flooding the market with illegal arms.[30] The economic fall-out from the 1997 Asian financial crisis served to promote maritime crime, especially in Indonesia which from 1996 to 2001, accounted for over a quarter of all international maritime assaults.[31]

In addition to the resurgence of piracy in Southeast Asia, there have also been geographical shifts. In the early 1990's, the Malacca Straits and proximate waters were identified by the IMB as the most dangerous in the world, accounting

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[29] Catherine Raymond, "Piracy in Southeast Asia; New Trends, Issues, and Responses," *Institute of Defense and Strategic Studies, Working Paper,* no. 89 (October 2005): 3-4.

[30] Liss, "Maritime Piracy," 58.

[31] Chalk, "Piracy Emerges,"

for roughly half of all pirate attacks. The reduced speed limits render vessels vulnerable to pirates in fast, maneuverable craft. In the mid-1990's, Southeast Asian piracy shifted away from the Malacca Straits and towards the South China Sea, Hong Kong and Macau, and the so-called HLH "terror triangle."[32] From 1993 to 1995 over fifty percent of Southeast Asia's reported pirate attacks took place in these three areas. In the late 1990's, Indonesian territorial waters gained notoriety for being the most prone to pirate attack. In 2004, Indonesia's waters accounted for 93 incidents, more than twenty-five percent of reported world wide attacks.[33] The Indonesian zones near Bintan and Batam islands have become well-known "black-spots" for piracy gangs and crime syndicates. As shipping approaches the Singapore Strait, pirates take advantage of the slowed and concentrated targets.[34]

The shifts in geographic prevalence of Southeast Asia's piracy occurred for a variety of reasons.[35] Security measures were increased in the Malacca Straits when the IMB began highlighting the dangers in the early 1990's. The Chinese, who were suspected of being complicit with pirates in the South China Sea as a furtive method to assert sovereignty, later cracked down on black market trade. The Asian financial crisis of 1997 to 1998 spurred a wave of economic piracy, especially in the vicinity of hard-hit Indonesia. The crisis also detracted from the Indonesian government's capacity to patrol its expansive shores. Pirate reporting inaccuracies and omissions may have also influenced trend results.[36]

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[32] HLH "terror triangle" represents an extended zone bounded by Hong Kong, Luzon (the Philippines), and Hainan Island (China).

[33] International Chamber of Commerce-International Maritime Bureau, <http://www.icc-ccs.org/prc/services.php> accessed May 2006.

[34] Anthony Davis, "Piracy in Southeast Asia Shows Signs of Increased Organization," *Jane's Intelligence Review*, 1 June 2004.

[35] Chalk, *Non-military Security*, 68-70.

[36] The IMB suspects that many incidents go unreported. In 2004, PRC officials estimated that authorities were not alerted to fifty percent of all incidents. Davis, "Piracy in Southeast Asia."

2. Piracy Incidents

1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
58	85	130	102	94	167	257	167	165	187	170	118

Table 1.   Piracy Incidents in Southeast Asia[37]

Table 1 illustrates the amount of piracy events in Southeast Asia over the past 12 years. Ships in Southeast Asia's waters remain susceptible to four of the five types of piracy described in Section A1 of this chapter. Yachtjacking is not typical of Southeast Asia.[38] Most common in Indonesian waters are attacks on harbored and anchored vessels. In 2004, 51 of 72 and in 2005, 56 of 67 actual attacks in Indonesia fell under this category.[39]

Attacks against vessels at-sea or "hit and run" tactics are also common in Southeast Asian waters. These types of attacks require more organization and resources than attacks on anchored vessels. Armed pirates, usually at night, come along side a ship and board via grappling hooks. The value of stolen goods in "hit and run" attacks averages between $10,000 and $20,000.[40]   In 2005, this type of tactic accounted for 22 of 81, twenty-seven percent of Southeast Asia's actual attacks. See Table 2.

2000	2001	2002	2003	2004	2005
51	32	26	55	42	22

Table 2.   Reported At-sea Actual Attacks in Southeast Asia[41]

[37] Numbers include South China Sea, Vietnam, and HLH area. International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[38] Only 10 of 276 incidents involved yachts, speedboats or other passenger ships. International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[39] International Maritime Bureau, *Piracy and Armed Robbery Against Ships*, (2004 and 2005).

[40] Davis, "Piracy in Southeast Asia."

[41] International Maritime Bureau, *Piracy and Armed Robbery against Ships*, (2000; 2001; 2003; 2004; 2005); *Reports on Acts of Piracy and Armed Robbery Against Ships*, *Annual Report 2002* (London: International Maritime Organization, 2003).

Hijacking of vessels at sea is less common than the first two varieties of piracy, but far more serious. An illustrative example of hijacking at-sea occurred in September 1998, when the Japanese owned vessel *Tenyu* disappeared in the Malacca Straits en route to South Korea with a cargo of 1,500 tons of aluminum. The ship reappeared in December in a Chinese port with a new name and an Indonesian crew. The fate of the original crew - thirteen Chinese and two South Koreans - is unknown.[42] In 2003, postulated to be a result of China's crackdown on black market activity, zero hijackings were reported. In April of 2005, armed pirates ordered a tin-laden cargo ship into a southern Malaysia port, unloaded the cargo, and then ordered the ship back to sea where they escaped via a speedboat.[43]

Hijacking involves a more complex network than mere robbery at-sea because pirates must either transfer the ship's cargo to another vessel, or unload at a complicit port. Pirates then require market access for the stolen cargo, which is usually gained via a crime syndicate or corrupted authority. Hijacked vessels can be transformed into "phantom ships" and used in various maritime crimes, such as pirate attacks, smuggling of goods or humans. This practice is becoming a less common occurrence in Southeast Asia. However, the trend of attacking and/or hijacking tugboats is increasing. In 2003 and 2004, ten of the thirteen and five of eight hijacked vessels were tugboats, respectively.[44] This trend has worried some observers who fear a connection to terrorism due to the ease in which tugboats can approach larger vessels.

In 2005 there were thirteen kidnaps-for-ransom worldwide, the most violent brand of piracy.[45] Pirates normally takeover a vessel (often a small

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[42] Donald Freeman, *The Straits of Malacca; Gateway or Gauntlet?* (Montreal: McGill-Queen's UP, 2003), 187-188.

[43] *Anti-shipping Activity Message*, National Geospatial-Intelligence Agency, 22 April 2005. <http://www.nga.mil/portal/site/maritime/index/> accessed May 2006.

[44] Raymond, "Piracy in Southeast Asia," 7-8; International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[45] Kidnap-for-ransom is considered more violent than the more common hostage holding because often times crewmembers are held hostage while the pirates raid the vessel. When the pirates depart, the hostages are then released or can escape, as opposed to kidnapping where victims are forced to depart with the pirates.

merchant craft or tugboat) then abduct one or two senior crewmembers. It is suspected by the IMB that many kidnappings may go unreported because ship owners want to avoid industry backlash for giving into demands.[46] On March 12, 2005, thirty-five pirates, armed with machine guns and rocket propelled grenades (RPG), boarded an Indonesian tanker in the Malacca Straits. The pirates kidnapped the master and chief engineer and held them captive until ransom was subsequently paid. Two days later armed pirates boarded a Japanese tug in the Malacca Straits, kidnapping the master, chief engineer and third engineer. The men were released, but Japan's Foreign Ministry did not comment on whether ransom was paid.[47]

3.   Trends in Piracy in Southeast Asia

> SULU SEA-PHILIPPINES-MALAYSIA: Malaysian tug (EAST OCEAN 2) and barge (SARINTO 1), sailing from Sabah to Solomon Islands with construction material, was attacked 11 Apr [2004] at 1900 local time near Taganak Island by 8 to 10 heavily armed gunmen in black uniforms and masks. Three crew were kidnapped and some electronics stolen from the tug before the attackers left in the direction of Philippine waters after forty minutes. Attackers, armed with M16 rifles equipped with grenade launchers, are believed to be members of Abu Sayyaf. As of 14 Apr, no ransom demands had been made for the three abducted crew. Tug barge and remaining crew returned safely to Sabah.[48]

As the prefatory excerpt suggests, the most significant trend in Southeast Asian piracy over the past decade has been the use of violent tactics. While the majority of pirate attacks continue to be armed robbery attributed to small-scale criminals, more complex operations such as hijackings and kidnap-for-ransom have emerged, indicating a shift to planned organizational tactics as opposed to opportunistic, solitary tactics. The IMB suspects that a variety of Indonesian and Malaysian pirate gangs and crime syndicates are responsible for the hijacking

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[46] Raymond, "Piracy in Southeast Asia," 10; International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[47] Sakhuja, "Sea Muggers"; International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[48] The Sulu Sea is a known operating area of the ASG near the Philippines. The ASG later demanded a ransom of $54,000 for the three crewmembers. *Anti-shipping Activity Message*, National Geospatial-Intelligence Agency, 11 April 2004; Davis, "Piracy in Southeast Asia."

attacks around the Malacca Straits.[49]   Unfortunately, little is known about the composition and structure of pirate gangs, including their operations and relationships to syndicated crime.[50] Table 3 suggests that violence still accounts for a significant portion of pirate activity in Southeast Asia, but encouragingly has been tapering off in the past three years.

	2003	2004	2005
Actual At-sea Attacks	61	48	22
Hostages Taken	151	120	119
Crews - Threatened	32	9	5
- Assaulted	7	6	1
- Injured	18	8	13
- Murdered	13	6	-
- Missing	22	18	12
- Kidnapped	NA	43	13

Table 3.   Recent Piracy Violence in Southeast Asia[51]

The increase in violence, organization, and complexity of the pirate enterprise is being facilitated by a concomitant modernization of the tools of the trade. Using modern Night Vision Devices (NVD) surveillance gear, Global Positioning System (GPS) navigation equipment, and access to the Internet, pirates can target specific ships with easy-to-sell cargo, ranging from metal ingots to electronic goods. Offensively, RPG's, rockets, and automatic weapons present a formidable threat to all commercial vessels and even small patrol craft.

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[49] Raymond, "Piracy in Southeast Asia," 11; Davis, "Piracy in Southeast."

[50] Derek Johnson and Mark Valencia, "Conclusion: Towards an Agenda for Piracy Research," in *Piracy in Southeast Asia: Status, Issues, and Responses*," (Singapore: Institute of Southeast Asian Studies, 2005), 162.

[51] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2003; 2005).

Top of the line speedboats and state of the art telecommunications allow for swift and coordinated operations.[52] At-sea modern day piracy has become a systematic operation in Southeast Asian waters.

C.   SIGNIFICANT PIRACY EVENTS FROM OTHER SEAS

<div style="border:1px solid black;">

<u>ALERT Somalia - NE and Eastern Coast</u>

Forty one incidents have been reported since
15.03.05. Heavily armed pirates are now attacking
ships further away from the coast. Ships not making
scheduled calls at Somali ports are advised to keep
at least 200 nm from the Somali coast.

</div>
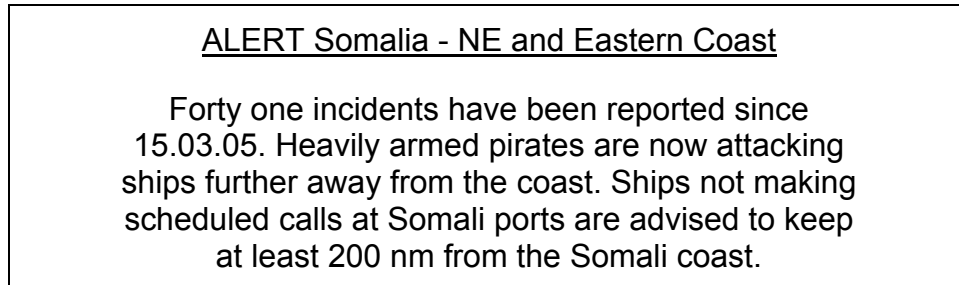
Figure 2.   Standing IMB Piracy Alert, April 2006[53]

The pirate violence in Southeast Asia corresponds to the worldwide trend in piracy. In 2005, 23 vessels were hijacked, the highest number since 2002 and the second highest number ever recorded by the PRC. Also in 2005, 440 crewmembers were taken hostage, the highest number since the IMB began keeping statistics in 1992. Hostage incidents were predominately in Indonesia, Somalia, and Nigeria.   Reportedly, no hostages or crewmembers were killed in 2005, but twelve remain missing. Also congruent with the trend in Southeast Asia, the total number of worldwide piracy attacks declined.   There were 276 attacks in 2005, the lowest number recorded since 1999. The IMB credits the drop in attacks to increased awareness, anti-piracy watches by shipmasters in risk-prone areas, and pro-active law enforcement by governments against armed robbery in ports and at-sea.[54]

In the past few months Somalia has headlined international news as a piracy hotspot. A country in anarchy, Somalia's decade-long civil war has spilled into its territorial waters. Arms trading, narcotic trafficking, human smuggling, kidnap-for-ransom, robbery at-sea, illegal fishing and dumping plague the coast

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[52] Liss, "Maritime Piracy," 62-64.

[53] The IMB recorded 35 attacks off Somalia in 2005, compared to just two in 2004. "Iraq Declared New Piracy Hotspot," *ICC Commercial Crime Services News*, 31 January 2006.

[54] Ibid.

line.[55]   Somali pirates tend to use kidnapping tactics, holding the crews until ship owners pay ransom. The issue of Somali piracy was highlighted by the attack on a cruise liner in November, 2005. *Seabourn Spirit*, carrying 302 passengers, was fired upon by RPG's and machine guns from two pirate boats. The fact that the liner was 100 miles off the coast raised eyebrows because small-boat attacks usually occur closer to shore. The Somali coastline is considered one of the most dangerous in the world.[56]

Earlier this year, the *USS Winston Churchill*, after numerous warnings were ignored, fired two salvos of warning shots and aggressively crossed the path of a hijacked vessel in order to apprehend the suspected pirates.[57]   More recently, as part of a Dutch-led coalition task force, the *USS Cape St. George* and *USS Gonzales* returned fire on a group of Somali pirates twenty-five miles off the coast. The brashness of the pirates mirrors the upward trend in violence seen in the Southeast Asian waters. Engaging coalition warships from a small skiff also demonstrates the unpredictability of pirates operating off the Somali coast.[58]   Hopefully, the two incidents above are isolated and not an omen that aggressive pirate resistance to military and law enforcement patrols is spreading.

The instability in Iraq also led to ten piracy events in 2005, compared to zero in 2004. Attacking from small boats near Basrah and Umm Qasr, pirates robbed ships which were usually anchored at oil terminals. The brand of piracy in Iraq was extremely violent, with several cases involving seriously injured crewmembers.[59]

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[55] Karsten von Hoesslin, (announcement for discussion meeting, International Institute for Strategic Studies, 23 February 2006).

[56] "Cruise Ship Repels Somali Pirates," *BBC News*, 5 November 2005.

[57] "Somali Pirates Detained by US Navy," *ICC Commercial Crime Services News*, 24 January 2006.

[58] Incident occurred on 18 March 2006. *Weekly Worldwide Threat to Shipping Report: Mariner Warning Information*, Office of Naval Intelligence, 5 April 2006.

[59] "Iraq Declared New Piracy Hotspot."

D. MARITIME TERRORISM

Maritime terrorism has taken many different forms over the years but for the most part remained the business of the states involved.[60] Similar to the debate on piracy, the legal definition of terrorism has not been resolved on the international level. For the most part, Southeast Asian states have avoided the struggle to define terrorism by defaulting to the Association of Southeast Asian Nations' (ASEAN) dictum that "the sovereignty, territorial integrity and domestic laws of each ASEAN Member Country" be respected in the fight against terrorism. No special counter-terrorism contingencies or arrangements have been made between the ASEAN states.[61] The accomplishment of both piracy and terror by the same group is an issue which adds further complication. When reviewing actual operations, the line between piracy and maritime terrorism becomes even more blurred because tactics frequently overlap.

One maritime event that clearly falls in the terrorism category is the Palestinian Liberation Front's hijacking of the *Achille Lauro* in the Mediterranean Sea in 1985. Notwithstanding the widespread publicity of the *Achille Lauro* episode, over the past thirty years maritime terrorism has constituted only two percent of all terrorist attacks worldwide.[62] There are good reasons for the paucity of maritime terrorist attacks. Firstly, the number of targets at sea is far less than compared to on land. There are thousands of ports and hundreds of thousands of vessels, but unlike a pirate who is seeking financial gain, a terrorist's target must make a political statement or instill fear. Simply blowing up a merchant vessel in the middle of the ocean would not serve those purposes.

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[60] Raymond, "Maritime Terrorism in Southeast Asia: A Risk Assessment" (2005): 5-9.

[61] Graham Ong, "'Ships Can be Dangerous Too': Coupling Piracy and Maritime Terrorism in Southeast Asia's Maritime Security Framework," *Institute of Southeast Asian Studies Working Paper: International Politics and Security Issues*, no. 1 (2004): 12.

[62] Catherine Raymond, "The Threat of Maritime Terrorism in the Malacca Straits*," Terrorism Monitor* IV, no. 3 (February 2006); James Pelkofski, "Before the Storm: Al Qaeda's Coming Maritime Campaign," *U.S. Naval Institute Proceedings*, December 2005, 21-22.

Even the 2002 attack on the *MV Limburg,* which was spectacular in terms of merchant shipping terms, was not featured in international news headlines for more than a day.[63]

Secondly, the uncharted and unforgiving nature of maritime operations, when compared with the informality of land based operations, presents a complicated challenge for terrorists. Operational maritime plans account for weather, sea state, visibility, tides, currents, etc., in addition to observing nautical "rules of the road" and physically launching, operating, and recovering a vessel. One must either develop through experience or acquire through training the skills necessary to operate in the maritime environment.[64] Lastly, even with a tool box of requisite skills, maritime operations require particular resources and logistics. Transporting and storing equipment, such as explosives, weapons, and provisions, becomes an order of magnitude more difficult when a land-sea transition is involved.

However, there are also sound reasons why the threat of maritime terror should not be dismissed. Certain types of attacks may be able to bypass many of the constraints and complexities listed above. For example, *Superferry 14* was bombed and sunk off Corregidor Island, Philippines, in February 2004 by ASG. The terrorists required absolutely no special maritime skills to carry a TNT-packed television set onboard.[65] The attacks on the *USS Cole* and *MV Limburg* demonstrated that Al Qaeda terrorists had been trained in basic levels of maritime operations. Ten months prior to the *USS Cole* attack, the prototype mission failed when the overloaded suicide boat sank upon launching.[66] The failed attack on the *USS The Sullivans* demonstrated that even basic maritime tactics can not be taken for granted; the successful follow-on attacks in the Gulf of Aden demonstrated that the enemy had learned from experience.

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[63] Captain P. Mukundan is director of the IMB P. Mukundan, "Piracy Threat Dictates Need for Intelligence-led Solution*," Jane's Navy International*, 1 November 2004.

[64] Pelkofski, 21-22.

[65] Juliet Labog-Jevellana, "SuperFerry 14 Bombing Solved, says Arroyo," *Inquirer News Service*, 12 October 2004.

[66] Pelkofski, 21-23.

E.   MARITIME TERRORISM IN SOUTHEAST ASIA

From 2000 to 2002 a series of events opened the eyes of Southeast Asia to the age of terror. The first was the February 200 bombing of the Philippine ferry, *Our Lady Mediatrix*, which killed approximately 40 people.   The bombing, attributed to the Moro Islamic Liberation Front (MILF), was seen by many as another statistic in the longtime separatist struggle of the southern Philippines. But Al Qaeda's attack on the hardened, fully armed *USS Cole*, a rash of violent kidnappings by ASG of Western tourists, and 9/11 clearly demonstrated that terrorists were transforming the battlefield. In December of 2001, the Indonesian ferry *Kalifornia* was bombed. That incident, along with a foiled plot against U.S. ships in Singapore left little doubt that maritime terror was real. The first Bali bombing in 2002 removed any uncertainty that public targets, especially Western connected targets, were fair game for terrorists in Southeast Asia.[67]

1.   Threat Assessment

The aerial attacks of 9/11 opened many eyes to the fact that terrorist groups like Al Qaeda exercised great ingenuity and possessed substantial resources. Some experts theorized that aviation security measures imposed after 9/11 would drive the Al Qaeda to the maritime regime. This fear seemed to pan out in June of 2002 when three Al Qaeda operatives were arrested in Morocco for plotting to attack U.S. and British ships in the Straits of Gibraltar. Others labeled the Sri Lankan separatist group, Liberation Tigers of Tamil Eelam (LTTE), which has been utilizing maritime terror since the 1980's, as exemplars.[68] Additionally, experts feared that terrorists would most likely use the shipping industry to smuggle WMD's since maritime terminal security standards varied greatly around the globe and many were considered lax compared to airline security standards.[69]

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[67] John Bradford, "Southeast Asian Maritime Security in the Age of Terror," *Institute of Defense and Strategic Studies*, no. 75 (April 2005).

[68] Catherine Raymond, "Maritime Terrorism in Southeast Asia," *Terrorism and Political Violence*, no. 18 (2006): 241.

[69] Dan Eaton, "Shipping is Weak Link in Terror War," *ISN Security Watch*, 13 June 2002.

The threat of maritime terrorism was specifically suspected to become more significant in Southeast Asia because the environs that gave rise to piracy could also foster terrorism. Economic hardship and inequality not only contribute to crime, but may also trigger and feed radical political movements which result in terrorism. Crime, piracy and terrorism function best when state controls are weak and law enforcement is corruption prone. Additionally, terrorists and pirates are transnational criminals. The lax border controls of Southeast Asian states coupled with ample hiding places afford both pirates and terrorists alike the secrecy required for planning and operating.[70]

The Joint War Committee (JWC) of Lloyd's Market Association added the Malacca Straits to the "war-risk" zone in June 2005, much to the disappointment of regional states. Regional officials cite that there have been no terrorist attacks and the number of actual pirate attacks represents a very small percentage of the total traffic through the straits, and in most cases involves small vessels. Despite rebuttals from Indonesia, Singapore and Malaysia, the JWC maintains that the terrorist and piracy threat is significant, based on its risk assessment.[71]

2.   Vulnerabilities to Terrorist Attacks

Analogous to pirate tactics, the narrow and congested waterways of Southeast Asia's choke points limit speed and maneuverability, making a vessel more susceptible to terrorist attack. Terrorists looking to hijack a tanker could wait under cover of uninhabited isle or the jungles which border many of the shipping lanes. Terrorists could also board a commercial vessel under guise of legitimate crewmembers. Crewmember authentication is virtually impossible, especially in ethnically diverse regions such as Southeast Asia. Thousands of cases of falsified or forged certificates have been reported to the IMB in the Philippines and Indonesia. Along the same vein, false papers are often used for phantom ship drivers and contraband or stolen cargo as well. Many legitimately owned vessels operating in Southeast Asia fly flags of convenience. Flags of

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[70] Piercey, "Piracy and the Risks of Maritime Terrorism," 65.

[71] JWC war-risk zones necessitate higher insurance costs for merchants. "NewsFlash," *Maritime Institute of Malaysia*, August 2005.

convenience make it difficult for officials to correlate registrations with owners, adding another layer of confusion which could be exploited by terrorists. Additionally, ships have become more vulnerable to hijacking and attack because the number of crewmembers needed to operate them has been reduced. Skeleton crews have become an industry norm as men are replaced by technology.[72]

Ports are vulnerable by nature because they are accessible from water and land. It is much more difficult to control access to ports than airport terminals because of the variety of business occurring. Ports are often located adjacent to large metropolitan areas, and usually have storage facilities for hazardous and flammable materials. A terrorist attack aimed at a port could serve multiple purposes. A major event could harm economic and material interests, it could instill great "terror" in the population, and it could represent a symbolic victory if perpetrated against a pier-side Western warship, cruise liner, or popular port.[73]

Another vulnerable component of the maritime infrastructure is the cargo and container process. Due to the large quantity of cargo and the "just-in-time" nature of the delivery system, inspection rates are very low, somewhere in the neighborhood of one to five percent depending on the shipper and destination country. Cargo handlers and port officials rarely see the contents of containers because most procedures rely on shipping declarations and tamper proof seals for determination of security. There are many opportunities in the life-cycle of a shipped container during which the contents may be compromised. Terrorists could place a bomb in a container, or hide themselves inside.[74]

The paucity of maritime terrorist incidents makes it hard to determine the potential threat and vulnerability to attack. Terrorists have demonstrated ingenuity and sophistication. Al Qaeda's trained operatives accomplished the 9/11 attacks and two maritime attacks in the Middle East. Southeast Asia's

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[72] Raymond, "Maritime Terrorism in Southeast Asia," 2006, 243-253.

[73] John Frittelli, "Port and Maritime Security," *CRS Report for Congress* (27 May 2005).

[74] Stephen Flynn, "Port Security is Still a House of Cards," *Council on Foreign Relations Far East Economic Review* (January/February 2006).

maritime network possesses traits which may attract terrorists. Besides piracy, Southeast Asia also has a history of terrorism and political violence. The two ingredients - advantageous maritime features and experienced insurrectionists - may not complete the recipe but the mixture does generate genuine cause for concern over the threat of maritime terrorism, a threat that should not be summarily dismissed.

3. Terrorist Groups in Southeast Asia

Southeast Asia's infamous history of piracy has been documented above. Also recognized is the history of terrorism in the region. Three of Southeast Asia's most notorious groups are the aforementioned JI and ASG, and Sumatra's Free Aceh Movement (also known as GAM for Gerakan Aceh Merdeka). JI operates in several Southeast Asian countries, seeking to establish a pan-Islamic state across the region. The group turned to violent tactics in the late 1990's. ASG was organized in the early 1990's as an underground militant group to promote Muslim resurgence in the Philippines. GAM rebels have been fighting since 1976 but their targets have normally been separatist-related, such as Indonesian authorities.

JI conducted four noteworthy attacks in Indonesia between 2002 and 2005, including two large-scale bombings in Bali and car-bomb attacks on the Australian Embassy and the J. W. Marriot Hotel in Jakarta. These events, along with foiled plans to bomb U.S. commercial airliners and U.S., British, and Israeli embassies in Singapore, have demonstrated JI's predilection towards sensational attacks.[75] JI's ties to Al Qaeda and to the ASG are of concern because both of those groups have demonstrated proficiency in the maritime arena. More concrete evidence of JI's intent to commit maritime terror was uncovered by Singaporean authorities who uncovered a JI plot to bomb U.S. warships at Changi Naval Base and attack commercial ships in the Malacca Straits.[76]

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[75] "Jemaah Islamiyah," *Council on Foreign Relations*, 3 October 2005.

[76] Gal Luft and Anne Korin, "Pirates and Terrorists: Yo ho ho, Infidel," *International Herald Tribune*, 29 October 2004; Raymond, "Maritime Terrorism in Southeast Asia," 2006, 241.

The Philippines-based ASG has its roots in maritime terror. Since ASG is primarily concerned with creating a separate Islamic state in the Philippines, its operations have been predominantly confined to that vicinity. One of ASG's first missions was the 1991 bombing of a foreign missionary motor vessel, *Doulos*, which killed two people. ASG utilizes a wide variety of tactics ranging from guerrilla warfare to kidnapping, but many members belong to Muslim families with a strong heritage of seafaring. ASG's most sensational maritime attack, the bombing of *Superferry 14* carrying 899 passengers, killed approximately 100 people. ASG has also persisted in the conduct of maritime related kidnappings, both at sea and at beach resorts.[77]

The GAM has conducted seaborne operations on the Malacca Straits. In 2001, the GAM went so far as to issue a warning that all ships transiting between Sumatra and Malaysia must first receive their permission.[78] In the past, the GAM has been accused of committing at-sea robberies and kidnaps-for-ransom in order to raise money for their insurgency. Others suspected that crime syndicates pretending to be GAM rebels perpetrated many of the kidnappings.[79] Currently, the GAM is under a peace agreement which went into force in August 2005.

As counter-terrorism measures are established, groups may change their modus operandi. In Indonesia, five women have been arrested since October 2005, for smuggling bomb-making hardware and volatile chemicals into the country. Prior to that date, all detainees for smuggling explosive substances had been men. The change in tactics indicates that Southeast Asian terrorist groups are trying to adapt to Indonesia's expansion of counter-terrorism security policies since the Bali attacks.[80] Hardening of land-based targets and step-up of port security since 9/11 may lead terrorists to target at-sea ships, including suicide

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[77] Rommel Banlaoi, "Maritime Terrorism in Southeast Asia," *Naval War College Review* 58, no. 4, (September 2005).

[78] Sakhuja.

[79] Raymond, "Piracy in Southeast Asia," 10.

[80] "Southeast Asian Terrorists Use Women as Explosives Couriers," *CIIR Global Issues Report*, 13 March 2006.

attacks similar to the *USS Cole*, hijack ships for use as a subsequent floating bomb, and commit kidnap-for-ransom.[81]   One should expect terrorist groups to continue moving away from traditional tactics as law enforcement and counter-terrorism pressures increase.

When considering the prevalence of terrorism in Southeast Asia, and the aforementioned vulnerabilities of the Malacca Straits and its 50,000 transiting vessels per year, the possibility of a major maritime terrorist attack seems real.[82] Two active Southeast Asian terrorist groups, ASG and JI, have participated or shown interest in maritime terror. Both groups have suspected links to Al Qaeda. In light of the piracy trend toward more violence and recent terrorist partiality to sensational targets, a number of frightening scenarios come to mind when combining the maritime domain, pirate tactics, and terrorist objectives.

4.   Maritime Terror Scenarios in Southeast Asia

While cause for concern may be collective, *there is no consensus among experts as to the probability or feasibility of different maritime terrorist attacks*. Scholars and media have suggested a number of maritime terror scenarios. A discussion of these scenarios will be constructive in comprehending the scope and complexity of different types of attacks, and vital to understanding the challenges involved with preventing attacks. The below terrorism scenarios are presented with accompanying discussion of feasibility.   Though described as potential events in Southeast Asia, each may be considered as a universal maritime terrorist tactic:[83]

1) Ship as a barrier: One of the more suggested attacks involves sinking a large vessel in the Malacca Straits, thus blocking all traffic. Initially, an attack of this nature may cause a major traffic jam but even at its narrowest point, the Malacca Straits are nearly two miles wide.[84] If a ship could be sunk exactly at

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[81] Ong, "Ships Can Be Dangerous Too," 7-8.

[82] Raymond, "Maritime Terrorism in Southeast Asia: A Risk Assessment" (2005).

[83] Scenarios 1-4 only. Raymond, "Maritime Terrorism in Southeast Asia," 2006.

[84] Other sources say 1 to 2 miles wide at narrowest point. C Kuppuswany, "Straits of Malacca: Security Implications," *South Asia Analysis Group Paper*, no. 1033 (18 June 2004).

the narrowest point, which in itself would require a meticulous plan, traffic would still be able to pass albeit at an even more cautious speed than usual. If a number of ships were sunk, the straits could conceivably be blocked.

2) Ship as a weapon: One of the more terrifying scenarios involves the detonation of a high-risk load such as liquefied natural gas (LNG) in Singapore harbor. The "floating bomb" scenario could shut down Singapore's piers and impact the world economy. Pirates have hijacked large tankers in the past, but the capacity to detonate a tanker's payload has not been demonstrated.[85] LNG, which is probably the most potentially dangerous cargo, could be ignited and cause catastrophic fire damage. LNG terminals are also lucrative terrorist targets because the potential for fire damage is even greater.[86]

The ship as a weapon scenario presents a number of complexities. Terrorists would have to use an adequate explosive device to ensure ignition of the LNG, rather than relying on collision to start a blaze. The sequence of events would have to be timed correctly. If crude oil tankers were used as the weapon, the fire and resulting damage would be more localized. Chemical tankers as weapons could pose a toxicity risk, as well as an explosive risk. Terrorists would have to have a functional knowledge of the ship's safety features and a well thought out plan in order to effect a catastrophic explosion or leak at the right time and location; a disjointed attack would not guarantee a fireball. Another obstacle for terrorists is that a large vessel may be impeded from a direct hit on a populated target by shoals or narrow channels. Long-term damage resulting from an explosion on-board a tanker would depend on the type of vessel involved, amount and type of cargo on board, and possibly the prevailing winds and tides.[87]

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[85] In 2004 and 2005, there were 56/31 and 43/27 reported attacks on chem/oil-LNG tankers, respectively. International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2004; 2005).

[86] Eben Kaplan, "Liquefied Natural Gas: A Potential Terrorist Target*?" Council on Foreign Relations,* 8 February 2006.

[87] Mukundan, "Piracy Threat Dictates."

The 2002 arrest of Al Qaeda commander, al-Nashiri, has convinced some analysts that a ship-as-weapon attack is plausible. Al-Nashiri masterminded Al Qaeda's small-boat attacks in Yemen. During interrogation after his arrest, al-Nashiri reportedly told officials that Al Qaeda had an instruction manual which described the best places to hit vessels (with explosive-laden small boats). The manual also detailed how to employ limpet mines, fire RPG's from high-speed boats, turn LNG tankers into floating bombs, and other very technical maritime operations.[88]

3) Mining: Though rarely discussed, mining would be an effective strategy for terrorists to close the Malacca Straits. Media and political attention would be high, even if the claim of mines is made without incident. However, the damage caused by a mine would depend on the type of mine and type of ship engaged, the latter being out of the control of the terrorists. Additionally, mining requires sophisticated employment and weaponeering plans. Though economic impacts may be substantial, loss of life and physical damage may not be.

4) Ship as a Weapon's Platform: Using a ship as a platform from which to launch a shoulder fired surface-to-air missile (SAM) is a viable tactic. SAM's are available on the black market and aircraft arriving at Singapore International must approach or depart over the shipping lanes. However, there is nothing about this type of scenario which is unique to the maritime arena. If terrorists were planning to launch a missile at a large aircraft, a launch site could be chosen near any international airport and would not necessarily be at-sea. Terrorists would most likely choose the site which allowed for the easiest escape - a small vessel in Singapore is just one option.

5) Small boat attack: An attack in which a small, explosive-laden boat rams into the hull of a larger vessel can be extremely lethal, especially in the congested harbors of Southeast Asia. This type attack was successfully

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[88] Eric Watkins, "Facing the Terrorist Threat in the Malacca Strait," *Terrorism Monitor* II, no. 9 (6 May 2004).

employed off of Yemen by Al Qaeda, on the *USS Cole* and *MV Limburg*. An attractive feature of the small boat attack, from a terrorist perspective, is the relatively low amount of training and coordination required.

6) Smuggling of WMD: Terrorists may use the shipping industry as a vehicle for smuggling a radioactive or chemical/biological weapon into a target for detonation in a major seaport, or for further transfer. The maritime shipping industry seems the most likely transport vehicle for international transport of WMD's (excepting common land-border traffic) because of inconsistent inspection standards. Also, ninety-five percent of the world's international cargo travels via ship.[89]

F.   CONCLUSION

Piracy has evolved from the Golden Age into a modern day phenomenon that is often violent and sometimes deadly. Piracy trends in Southeast Asia and instances of piracy around the globe indicate that today's professional pirates are well-organized and well-equipped, wielding modern arms and high-technology communications, surveillance, and navigation equipment. Southeast Asian pirate gangs have no compunction about taking hostages and some have resorted to kidnap-for-ransom tactics. Though total the number of reported piracy attacks dropped in 2005, the gravity of the situation is heavier than ever due to the brand of violence.

Maritime terrorist events, the type that would garner world-wide media attention, may prove more complex than land attacks. The fact that a Southeast Asian terrorist group such as JI would require special resources and training in order to accomplish a large-scale maritime terror attack has led some to question the threat. Others see the history of Southeast Asia's terrorist groups, including acts of piracy and at-sea terror, as a precursor to more spectacular maritime events. ASG has conducted a number of maritime terrorist acts, and GAM has

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[89] B Raman, "Comprehensive Maritime Security," *South Asia Analysis Group Paper*, no. 1403 (4 June 2005); Carafano, "Making the Sea Safer," 15.

been suspected of using kidnap-for-ransom tactics in a limited number of cases, but there is still little evidence that terrorist groups are colluding with economic pirates.[90]

Therefore, the probability of another maritime terrorist event is coupled to the terrorist threat in Southeast Asia, not to the pirate threat. Maritime terrorist events are plausible as demonstrated by ASG, but the prevalence of piracy in the region does not increase the probability of terrorist attack. In fact, the maritime security issues which were important to Southeast Asian states prior to the spotlight being shone on terrorism by the GWOT are still the most germane. The primary issue is the level of governmental commitment and concern for the general security of choke points and ports. In collective territories, such as the Malacca Straits, formulation of cooperative polices will likely be needed to ensure the safety of commerce. In major shipping ports, Southeast Asian nations should understand and address the concerns of international users.

The security dilemma for anti-piracy and counter-terrorism policy is not a mutually exclusive problem. As discussed above, for a number of scenarios there are known commonalities between both maritime threats, such as vessel hijacking. Southeast Asian nations can endeavor to gain synergistic effects by developing and applying maritime security policy which covers both pirate and terrorist tactics. Likewise, the reduction of maritime vulnerabilities may also benefit security in both the criminal and terrorist arena. As will be discussed further in Chapter III, patrolling congested traffic patterns and monitoring coastal environments are examples of two functions that Southeast Asian maritime forces had undertaken to prevent piracy. These and other measures are patently appropriate for preventing all types of unlawful maritime activity.

The threat of terrorism, including maritime terrorism, is difficult to assess because so much about the threat is unknown and unpredictable. So, efforts must continue on the state, regional, and international level to define terrorist organizations. When terrorist links are uncovered, like those between JI and Al

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[90] Raymond, "The Threat of Maritime Terrorism in the Malacca Straits."

Qaeda, it will be best for nations to share information with other concerned parties so that the terrorist's objectives may be thoroughly investigated. The transnational character of terrorism compels an international security strategy. It is important for Southeast Asian states to promote policies which allow active participation in regional and international security establishment.

There is also much that is not yet understood with regard to piracy in Southeast Asia. Regional governments and concerned actors should look to inform maritime security policy by researching the links between piracy and other illegal activities such as smuggling, poaching, black marketeering, and human, narcotics, and arms trafficking. The role of corruption and collusion between pirates and law state officials should be clarified. In a region which is limited in maritime security resources, it would be prudent to evaluate the economic impacts of piracy versus the costs of security responses before deciding on policy. And though a conspiracy between terrorists and pirates has not been uncovered, the relationship between the two may change as a result of security posture or other forces. Therefore, it is important for Southeast Asian states to consider and explore the effects that security policies may have on the piracy-terrorism relationship.[91]

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[91] Johnson, "Conclusion: Towards an Agenda," 162-65.

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III. MARITIME SECURITY IN SOUTHEAST ASIA

The 9/11 attacks not only changed the way that Americans viewed the threat of terrorism, but also illustrated to the world that the potential target set for terrorists had widely expanded. The lethality generated by a common means of transportation (and potentially by WMD's) demonstrated a major shortfall in the international security realm. In the aftermath of 9/11, maritime infrastructure emerged as a likely candidate for terrorist attack. Southeast Asia, home to globally important sea lines of communication (SLOC), strategic choke points and a vast maritime network of ports, also emerged as a likely candidate for terrorist attacks, primarily for the reasons discussed in the Chapter II regarding the threat of terrorism.

Also discussed in the Chapter II was the rise of modern day piracy in Southeast Asia. Piracy tactics have turned increasingly more violent, and pirates have become more organized. Experts differ in opinion on whether or not piracy trends will result in an increase of maritime terrorism. Certainly there is nothing prohibiting terrorists from using piracy tactics or collaborating with pirates to conduct maritime terror. But even if similar tactics are used, the distinction between the goals of pirates and terrorists is clear. Pirates seek economic gains; terrorists seek political objectives. A terrorist group committing piracy for financial gain is conducting crime at-sea, not maritime terrorism. However, because piracy and the threat of maritime terrorism coexist in Southeast Asia, it may be possible to direct maritime security policies towards the prevention of both events.

Chapter III will study unilateral, regional, and international maritime security policies in Southeast Asia. Regional policies connected to major international actors, such as the United States, will be evaluated separately. The objective of this chapter is to examine Southeast Asia's maritime security policies in the face of piracy and the potentiality of maritime terror, and identify any issues that are applicable to U.S. maritime security strategy.

A.   IMPORTANCE OF SECURING SOUTHEAST ASIA'S WATERS

Southeast Asia's waters are strategically important to regional and international economies. Approximately one-third of the world's shipping, half of the world's oil, and a quarter of the world's cargo passes through the region.[92] Commercial traffic through the Malacca Straits continues to grow. Nearly two-hundred commercial vessels per day pass through the Malacca Straits, including tankers carrying eighty percent of northeast Asia's oil.

The issue of importance pertains to far more than just the matter of keeping the sea-lanes open. Of equal or greater importance to the world economy are Southeast Asia's ports, especially Singapore.[93] In a 1993 study by the Center for Naval Analysis, the economic costs of blocked trade were predicted to be much larger in magnitude than detour costs. It was estimated that a diverting of ships around the Malacca Straits would cost the world economy $3.5 to $8 billion. The study estimated that the port blockage cost for Singapore would be $130 billion. If all major Southeast Asian ports were closed, the cost to the global economy was estimated to be over $230 billion.[94]

Southeast Asia's waters will continue to gain importance. Within the next ten years, the combined gross domestic product (GDP) of China, India, and Japan is forecasted to surpass that of the United States. By the halfway point of this century, China's GDP is forecasted to be the world's largest and the combined GDP of China, India and Japan to be twice that of the United States.[95] The expected growth of Asia will place the waters of Southeast Asia at the world's economic center of gravity, making maritime security an even higher priority.

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[92] Piercey, 65.

[93] Mark Cleary and Goh Chuan, "Trade and Environmental Management in the Straits of Malacca," in *Shipping and Ports in the Twenty-first Century* eds. David Pinder and Brian Slack, (New York: Routledge, 2004), 260-62.

[94] For the Malacca Straits blockage scenario, the port of Singapore was hypothesized to remain open with all approaches from the east. John Noer, *Chokepoints: Maritime Economic Concerns in Southeast Asia* (Washington DC: National Defense University, 1996), 33-50.

[95] Joshua Ho, "Maritime Counter-terrorism: A Singapore Perspective," *Institute of Defense and Strategic Studies*, Commentaries (2004), 1-2.

B.   UNILATERAL MARITIME SECURITY

1.   Indonesia

Indonesian officials are aware that the marked increase in piracy of the 2000's has largely occurred in their waters. But the economic doldrums that contributed to the rise in piracy also impaired Indonesia from combating the crimes.   As an example, in 1999 Singapore spent $4.2 billion on its military, Indonesia spent only $1.5 billion.   Controlling the vast archipelagic waters and territorial seas of Indonesia would be a formidable task for a 300-ship Navy; Indonesia has approximately 115 ships dedicated to maritime protection of which about one-quarter are operating at any one time.   Additionally, coordination of efforts between the different governmental, private, and military agencies responsible for maritime security has been disjointed.[96]   Indonesia has at least ten agencies that have some involvement in maritime security management with nine authorized to conduct law enforcement operations at sea.   Reform efforts are ongoing.[97]

Indonesia is modernizing its Navy with focus on coastal interdiction and patrol. Indonesia has established Navy Command Control Centers in Batam and Belawan which include assets and special forces designed to rapidly respond to hijackings and "hit and run" piracy.[98] The Indonesian Navy is installing radar and communications towers at nine locations along the Malacca Straits. The system will facilitate tracking and reporting of pirate activity.[99]

With regard to territorial jurisdiction, Indonesia has been one of the most vocal Southeast Asian states advocating the protection of sovereignty. Indonesia's suspicious nature is demonstrated by their unwillingness to cooperate in multilateral or extra-regional initiatives such as those suggested by Japan (see below). Indonesian policy makers feel that cooperating with Japan

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[96] Hasjim Djalal, "Combating Piracy: Co-operation Needs, Efforts, and Challenges," in *Piracy in Southeast Asia: Status, Issues, and Responses*," (Singapore: Institute of Southeast Asian Studies, 2005), 144-148.

[97] Sam Bateman, "Naval Balance in Southeast Asia," *Jane's Defense Weekly*, 11 May 2005.

[98] Ho, "Maritime Counter-terrorism," 4.

[99] Valin, "RI Navy to Install Radars along Malacca Strait," *ANTARA,* 9 March 2005.

comes at a high cost internationally and domestically. Due to domestic problems, piracy is a lower priority for Indonesia than for other states like Singapore. Some even suspect that fighting piracy is a low priority because certain political elements may be profiting from the criminal activity.[100]

The news is not all grim as some positive turnarounds have been made by Indonesia in the Malacca Straits. In 2005, Indonesia's Operation Gurita resulted in numerous gangs of pirates being caught and at least six small vessels being recovered. Indonesia's positive efforts helped decrease attacks in Indonesia from 94 in 2004, to 79 in 2005. Attacks in the Malacca Straits fell from 38 in 2004, to 12 in 2005.[101]

2. Malaysia

Like Indonesia's maritime forces, the Royal Malaysia Navy (RMN) has a daunting task because of its divided geography stretching 1,500 miles from the northern end of the Malacca Straits to the southern Philippines border. Further demands are placed on the navy by distant claims to contested islands and protection of offshore assets. One must not forget that the securing the Malacca Straits is just one of Malaysia's many maritime priorities.[102]

Malaysia also has fears of terrorism, especially from JI or JI splinter groups. Maritime security has been bolstered over the past few years to protect ships and important channels in East Malaysia. The RMN has offered escort services to high-risk commercial vessels entering from the Philippine waters. In the West, Malaysia has employed a string of radar tracking stations along the Malacca Straits to monitor traffic. The RMN and Royal Malaysian Marine Police (RMMP) have acquired new patrol boats and increased response capacity.[103] Malaysia's recent formation of a new coast guard, the Malaysian Maritime

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[100] Mark Valencia, "Piracy and Terrorism in Southeast Asia: Similarities, Differences and their Implications," in *Piracy in Southeast Asia: Status, Issues, and Responses*," (Singapore: Institute of Southeast Asian Studies, 2005), 82.

[101] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

[102] Jane's Sentinel Security Assessment - Southeast Asia, Navy Malaysia <www.janes.com>.

[103] Ho, "Maritime Counter-terrorism," 5.

Enforcement Agency (MMEA), is designed to relieve pressure on the RMN and RMMP, and better align assets with missions. Malaysia hopes that the MMEA will consolidate the maritime security effort which was previously managed by eleven governmental departments and involved more than 400 boats. Malaysia plans to have all 72 MMEA vessels in service by July 2006.[104]

Malaysia is also streamlining the Maritime Enforcement Coordination Center (MECC) by authorizing the MECC to coordinate all enforcement activities of the RMN, Air Force, Marine Police, Fisheries Department, and Royal Customs and Excise Department. The MECC coordination effort will soon benefit from the use of new satellite monitoring and communications technology.[105]

3.   Singapore

For more than any other Southeast Asian nation, 9/11 was a wake up call for Singapore. Leaders immediately realized how vulnerable Singapore was to terror, especially its ports. Singapore's military began counter-terrorism training and the government launched an awareness campaign for the populace.[106] Singapore's concern for the threat of terror is revealed by the title of the 2004 document, "The Fight Against Terror, Singapore's National Security Strategy."

Singapore's "total defense" campaign at home has spilled over to the diplomatic realm. Singapore has not been shy about urging ASEAN to move past discussing the maritime threat and taking action. In May 2005, Singapore's Defense Minister suggested that ASEAN and the ASEAN Regional Forum (ARF) should host maritime security exercises.[107] Singapore's Defense Minister has also claimed that the responsibility for security belongs to any nation that transits the Malacca Straits. This is of no surprise as Singapore's economy is tied to its ports, which accommodate over 1,000 ships per day.

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[104] Richard Baker and Charles Morrison, eds. *Asia Pacific Security Outlook 2005* (New York: Japan Center for International Exchange, 2005); "Formation of Malaysian Maritime Enforcement Agency," in *Interview with Deputy Prime Minister Datuk Najib*, 22 October 2005. FBIS translated, <www. opensource.gov> accessed May 2006.

[105] "Malaysia Records Less Piracy in January-April," *Asia Pulse,* 25 May 2006.

[106] Carpenter, *Asian Security Handbook*, 261.

[107] Raman.

Singapore has led the charge in attempting to couple piracy and terrorism under one campaign. By conflating the two, Singapore hopes to influence regional neighbors to increase security efforts and perhaps pave the road for multilateral efforts or a UN-sponsored task force. Linking the two threats may also make it more palatable for governments and their constituents to accept outside assistance and allow interested foreign naval powers such as the United States, India, and Japan, to patrol their waters. Singapore has been joined in its campaigning by various non-state affiliated agencies like the IMB and ship owner associations.[108]

Singapore is the technological trend setter in Southeast Asia. Singapore has integrated a surveillance and information network for tracking and investigating suspicious activity, and requires that even small boats be fitted with tracking devices.[109] Singapore has increased navy and coast guard patrols and instituted random escort of high-value merchant vessels through the Singapore Straits.[110] Singapore's Navy is acquiring a number of blue-water capable frigates.

Singapore has also imposed security procedures on visiting ships. Immediately after the U.S. invasion of Iraq, Singapore ordered numerous restrictions on vessels entering port. Pleasure craft have been banned from entering or exiting the port at night or transiting important shipping lanes at night. Small vessels are prohibited from approaching anchorages demarcated for large tankers.[111]

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[108] Mark Valencia, "Piracy and Politics in Southeast Asia," in *Piracy in Southeast Asia: Status, Issues, and Responses* eds. Derek Johnson and Mark Valencia (Singapore: Institute of Southeast Asian Studies, 2005) 113-115.

[109] See Appendix A for information on Singapore's harbor tracking system (HARTS). Baker, 165.

[110] Ho, "Maritime Counter-terrorism," 5.

[111] Keith Bradsher, "Attacks on Chemical Ships in Southeast Asia Seem to Be Piracy, Not Terror," *New York Times*, 27 March 2003.

4. Philippines

The Philippines has not placed the prevention of piracy among its top national agendas.[112] The Philippine Navy is the weakest in Southeast Asia and would be severely tested in sustaining any type of counter-terrorism patrols, especially given the expansive territory which the navy must cover.[113] In an effort to expand their posture, the Philippine Navy activated a detachment to support counter-terrorism efforts east of Mindanao in November 2005. The detachment's mission was to increase patrol presence in major sea routes and assist with ship surveillance in the area, currently being performed by land radar.[114] The Philippines is also seeking assistance and training to improve the quality of its navy. U.S.-Philippine bilateral maritime training exercises will be discussed below.

As a close ally of the United States, the Philippines benefits greatly from U.S. assistance in its fight against secessionist terrorism. Most of the Philippine counter-terrorism efforts are aimed against the ASG. Though much of the ASG's capabilities have been diminished by Filipino forces in the past few years, officials are aware that the ASG's may still possess the desire and capacity to strike the maritime sector, day or night. Experts state that to counter ASG's maritime operations, the Philippines must redress a weak intelligence network. Despite efforts to strengthen the National Intelligence Coordinating Agency, military authorities cite non-sharing of intelligence as hampering the anti-terrorism campaign.[115]

5. Thailand

Thailand has become a cooperative partner in the war on terrorism since 2003. Thailand's major security concerns are internally, Muslim separatism in

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[112] Adam Young, "Roots of Contemporary Maritime Piracy in Southeast Asia," in *Piracy in Southeast Asia: Status, Issues, and Responses* eds. Derek Johnson and Mark Valencia (Singapore: Institute of Southeast Asian Studies, 2005), 22.

[113] Bateman.

[114] "Philippine Navy Activates detachment in Sarangani Bay to Address Terrorism," Philippine Star, 8 November 2005.

[115] In 2003 the Philippine Department of National Defense reported 117 armed engagements with ASG, neutralizing 174 members. Banlaoi.

the southern most provinces, and externally, narcotics from Myanmar. With regard to maritime security, the Royal Thai Navy (RTN) has established a Coast Guard Command. The 68,000 man Thai navy is somewhat limited in capability but Thailand has a relatively small responsibility since there are few maritime zones under its jurisdiction.[116]

C. COOPERATIVE MARITIME SECURITY POLICIES

> [I]ndividual state action is not enough. The oceans are indivisible and maritime security threats do not respect the boundaries.[117] Singapore's Deputy Prime Minister, Tony Tan

1. Bilateral and Trilateral Policy

Bilaterally, Singapore and Indonesia responded to the surge in modern-day piracy with a 1992 agreement for coordinating patrols, which helped stem problems in the Singapore Straits until the Asian financial crisis. Likewise, Indonesia and Malaysia began coordinating efforts the same year to protect the Malacca Straits. Singapore and Malaysia and the Philippines and Malaysia later established similar coordination plans for protecting the Malacca Straits and curbing cross-border illegal activities, respectively. The RMN and RTN have also patrolled jointly. These bilateral endeavors have been inconsistent in application and effectiveness. Some attribute the decrease of piracy in the Malacca Straits (44 in 2001 to 21 in 2003 to 12 in 2005) to the cooperative efforts. Others question whether the patrols are more symbolic than effective, as the Malaysia-Indonesia Coordinated Patrol occurred only four times per year.[118]

Twice a year, Indonesia's navy conducts joint patrols with India's navy to protect the Six Degree Channel, the waterway to the west of the Malacca Straits. Indonesia prepared 40 ships for the exercise in September 2005. In addition to

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[116] David Wiencek, "Thailand: Resurgent Extremism and Other Challenges," in *Asian Security Handbook* eds. William Carpenter and David Wiencek (New York: M.E. Sharpe, 2005), 302.

[117] Tony Tan, "Maritime Security after September 11," International Institute for Strategic Studies conference, Singapore, 1 June 2003 cited in John Bradford, "The Growing Prospects for Maritime Security Cooperation in Southeast Asia," *Naval War College Review* 58, no. 3 (Summer 2005).

[118] Djalal, 149; Ho, "Maritime Counter-terrorism," 5.

anti-piracy, the two navies stress the prevention of smuggling, illegal fishing, human and drug trafficking, arms running, and maritime terrorism. The overarching objective of the coordinated patrols is to enhance mutual understanding and interoperability between the two navies.[119]

India is also using naval diplomacy to broaden relationships with Malaysia, Myanmar, Singapore, Thailand, and Vietnam. High level port visits, joint working groups, officer exchange programs, mutual attendance at symposiums, and bilateral exercises are examples of the efforts India has made over the past few years. In addition to protecting the economic sea lanes, India has a material interest in securing the western seas of Southeast Asia. By 2012 an undersea pipeline will carry natural gas from Myanmar to India.[120]

In May of 2005 Project SURPIC (surface picture), an initiative to improve cooperation and information sharing, was launched between the Indonesian and Singaporean navies.[121] In the southeast end of the region, the Philippines, Indonesia, and Malaysia signed a tripartite anti-terrorist pact in 2002. The "Agreement on Information Exchange and Establishment of Communications Procedures" builds the framework for cooperation and interoperability. So far, there has been little confirmable success attributed to the cooperative.[122]

More recently in November 2005, the Philippines, Indonesia, and Malaysia began discussions to establish a line of defense against pirates and terrorists along their common sea borders. Dubbed Coast Watch South (CWS) by the Philippines, the effort was aimed at restricting the movement of JI militants in the Celebes and Sulawesi Seas. According to the Filipino Defense Secretary, the

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[119] "Indonesian Navy Conducts Coordinated Patrols with Indian Navy in Malacca Strait," *Medan Analisa*, September 2005. FBIS translated, <www.opensource.gov> accessed May 2006.

[120] Prasun Sengupta, "Led by Navy" *New Delhi Force*, 1 November 2005. FBIS translated, <www.opensource.gov> accessed May 2006.

[121] Raakhee Suryaprakash, "Securing the Straits, Some New Moves," *South Asia Analysis Group Paper,* no. 1402 (3 June 2005).

[122] Agreement on Information Exchange and Establishment of Communication Procedures found at aseansec.org/17346.pdf accessed May 2006; Ralf Emmers and Leonard Sebastian, "Terrorism and Transnational Crime in Southeast Asian International Relations," in *International Relations in Southeast Asia* ed. Donald Weatherbee (Lanham, Maryland: Rowman and Littlefield, 2005), 166.

National Defense Department has made CWS a priority for 2006. The navy-led CWS intends to employ assets from the Philippine navy, coast guard, maritime police and Bureaus of Immigration and Customs. Neither interagency nor interstate details have been flushed out.[123]

2.   Multilateral Policy

> It would be very nice if [multinational cooperation] could happen, but the issue of sovereignty in [Southeast Asian countries is] such that it won't happen soon …It's a very, very sensitive issue.[124] Mr. Mukundan, IMB Director

Transnational crimes - piracy, narcotics and human trafficking, arms running, money laundering, black marketing, illegal immigration - and terrorism are a challenge to the governments of Southeast Asia because the acts defy domestic jurisdictions. Southeast Asian governments are coming to the realization, sometimes grudgingly, that the only way to combat the transnational activities is via cooperation. Considering the scope of the problems, cooperation has been limited as most states prefer to act, and react, on a national level.[125] But two factors point to a promising trend. First, as the economies of Southeast Asia recover from the Asian financial crisis, the states are becoming more economically interdependent with each other and with international trading partners. As budgets enlarge, governments will be able to spend more on security. Second, the threat of transnational terrorism has been thrust upon Southeast Asia. Political violence is nothing new to the region, and many of Southeast Asia's rebel groups had international ties long before 9/11. But highly visible attacks like the Bali bombings and *Superferry 14* have sounded a clear alarm that Southeast Asia will play an important part in the GWOT.

The first step in the regional cooperative effort to eradicate piracy was the IMB's establishment of the PRC in 1992. Since then, there have been many developments as will be discussed below. The wave of global terror has spurred

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[123] "Keep Politics Out," *AsiaViews*, 6 February 2006.

[124] Phillip Day, "Security in a Straightjacket? - Why it's So Hard to Make a Key Asian Waterway Safe from Terror," *Wall Street Journal*, 13 June 2003, A5.

[125] Emmers, 156-157.

more cooperative efforts in the past five years. The bilateral efforts tended to produce more operational cooperation, whereas multilateral endeavors have in large part concentrated on information sharing and dialogue. A measured amount of operational cooperation has been achieved in the Malacca Straits, but overall, multilateral maritime security efforts remain thin. The small number of bilateral and multilateral arrangements created may be insufficient to provide a long-term solution to the increase in at-sea violence and threat of maritime terror.[126]

a.   ASEAN

Forming substantive multilateral efforts has been problematic. ASEAN has refrained from pushing a purposeful multilateral approach to piracy, respecting the traditional concepts of sovereignty. ASEAN has also been careful not to stretch linkages between terrorism and piracy, smuggling, money-laundering, or other transnational crimes. ASEAN has a multitude of adjunct fora to address transnational crime. Most discussion has centered on overcoming dissimilarity of laws and sharing of information.[127]

The most significant multilateral mechanism for dealing with piracy and other regional threats has been the ASEAN Ministerial Meeting on Transnational Crime (AMMTC). The AMMTC grew out of fears of terrorism in the mid 1990's and forms the core of ASEAN counter-terrorism cooperation. After 9/11, the AMMTC updated its terrorist work plan for the region, and advocated a number of collaborative initiatives concerning the formation of a terrorist task force and extradition of terrorist suspects.[128]

In 2002, ASEAN adopted a work program to implement the ASEAN Plan of Action to Combat Transnational Crimes. The plan advocates sharing information, cooperating and training in anti-piracy measures, building capacity and providing technical assistance for needy states.[129] To focus more on

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[126] Bradford, "Age of Terror," 9-10.

[127] Ong, "Ships Can be Dangerous," 12-13.

[128] Emmers, 166-167.

[129] Djalal, 151.

terrorism, ASEAN adopted the Vientiane Programme (VAP) in 2004. VAP continues to work toward implementation of the Plan of Action to Combat Transnational Crimes, and also promotes the overarching vision of the ASEAN Security Community (ASC). ASC is a concept proposed and promoted by Indonesia to counter crime and terrorism. The ASC does not provide military alliance or new security structures, but rather emphasizes existing instruments from the nonaligned Cold War era such as the Zone of Peace, Freedom, and Neutrality, the Treaty of Amity and Cooperation, and the Southeast Asian Nuclear Weapons Free Zone. The ASC was proposed in 2003 and followed up when the ASC Plan of Action was approved in 2004.[130]

The ARF, which follows the "ASEAN way" of emphasizing relationship building and dialogue rather than pressuring mutual action, has been addressing piracy for years. Discussion has primarily centered on working around the different international interpretations of piracy and sovereignty issues. Participation in any measure is voluntary and respect of sovereignty and national jurisdictions is paramount.[131] But the war on terror has heightened the ARF's attention to security. In 2003, the ARF issued a "Statement on Cooperation against Piracy and other Threats to Maritime Security" to improve bilateral and multilateral cooperation between members. The statement aimed to conflate the response to piracy and terrorism, mostly by enhancing information sharing. In 2004 at the ARF Workshop on Maritime Security, participants agreed that collective action was required to combat maritime threats.[132] The ARF's "Work Programme to Implement the ASEAN Plan of Action to Combat Transnational

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[130] SEANWFZ was technically a product of Post nonalignment, ratified in 1995. Although Indonesia had strongly promoted it in the 1980's, USSR-Influenced Malaysia and the U.S.-influenced Philippines and Thailand had previously stymied its passage. Donald E. Weatherbee and Ralf Emmers, *International Relations in Southeast Asia: The Struggle for Autonomy,* (Lanham, Maryland: Rowman & Littlefield Publishers, 2005), 84, 90-95, 105-107.

[131] Greg Chaikin, "Piracy in Asia: International Co-operation and Japan's Role," in *Piracy in Southeast Asia: Status, Issues, and Responses,"* (Singapore: Institute of Southeast Asian Studies, 2005), 129-130; Valencia, "Piracy and Terrorism in Southeast Asia," 94-97.

[132] ASEAN Annual Report 2004-2005, *ASEAN Security Community*, (Jakarta: ASEAN, 2005), 15.

Crime" was endorsed by the ASEAN Ministerial Meeting.[133] These statements represent a trend toward cooperative norms, a change from the ASEAN norms of sovereignty preservation and non-interference.

b.   TRACK II

Regarding "Track II" or non-governmental ARF efforts, the Council for Security Cooperation in the Asia-Pacific (CSCAP) has established a maritime security team but the group has taken a broad approach rather than focusing on piracy or terrorism. The CSCAP, via a Memorandum for Cooperation for Law and Order at Sea, has advocated "confidence-building" efforts like naval cooperation, and proposed a set of guidelines to enhance a broad range of information sharing and cooperative efforts.[134]

The Workshop on Managing Potential Conflict in the South China Sea illustrates the cautious and convoluted manner in which regional security processes evolve in Southeast Asia. Throughout the 1990's, the South China Sea workshops (and offshoot workshops) convened a number of times to discuss matters of security, safety, legality, technology, communications, search and rescue, and environmental protection. Ten years of meetings produced numerous reports and recommendations, but no signed conventions or agreements. This judgment is not meant as an indictment of the process, but rather an observation that any effort to strengthen maritime security in Southeast Asia must account for significant differences between states, including:[135]

1)   Conflicting and ambiguous laws and definitions (including articles on the international level).

2)   Convoluted lines of authority and law enforcement responsibilities.

3)   Disparity of resources.

4)   Different levels of willingness to cooperate.

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[133] Bradford, "Age of Terror," 8.

[134] Valencia, "Piracy and Politics in Southeast Asia," 115-116.

[135] Djalal, 151-159.

Track II and official diplomatic dialogues are superb vehicles for identifying issues like the four listed above; the challenge is moving past the dialogue stage and bringing meaningful, action-oriented commitments to fruition.

c. Malacca Straits Security Initiative

In 2004, Malaysia, Singapore, and Indonesia launched a trilateral coordinated patrol as part of Operation Malsindo under the Malacca Straits Security Initiative (MSSI). Navies of each country coordinate patrols while remaining in their own territorial waters. The navies have established a communications link between command centers at Batam (Indonesia), Lumut (Malaysia), and Changi (Singapore), and have also granted merchant vessels access to official frequencies so direct calls for assistance could be made. The "hotline" will allow swift communications but the agreement lacks an unabated "hot pursuit" clause. Approximately 80 percent of Southeast Asia's pirate attacks occur within territorial waters. The right of hot pursuit allows law enforcement to pursue an attacker onto the high seas, but not into the sovereign seas of another nation. In the past, pirates have used this legal seam to their advantage, deliberately fleeing across jurisdictional lines.[136]

Officials from three Malsindo and Thai navies met last August to discuss the "hot pursuit" issue.[137] The Thai navy was invited to participate in the joint patrol in the summer of 2005. As it stands, patrol boats can not freely enter each other's territory while giving chase. Navies must rely on communications to coordinate a hot hand-off, a tactic which may be less effective than maintaining physical contact until hand-off.[138]

The MSSI also includes joint air patrols. In September 2005, "Eyes in the Sky" took to the air over the Malacca Straits. Thailand was invited to participate as an observer. Initial plans called for two sorties per country per week, to patrol the straits. Only one aircraft will patrol at a time, remaining over

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[136] Chalk, *Non-military Security*, 75-76.

[137] "Malacca Straits Security Discussed," *VN Agency* (Jakarta), 19 August 2005.

[138] Raymond, "Piracy in Southeast Asia," 15-16; Ho, 6.

water, and radioing suspicious contacts to the appropriate patrol assets. The limited detection capability and range of the air patrols, combined with the scant number of missions, raises doubt as to the efficacy of Eyes in the Sky.[139]

Regardless of potential shortcomings, the MSSI is the first to operationalize multilateral cooperation without the participation of a non-regional actor. The media coverage for the patrols, and the fact that India and Thailand expressed interest in joining, signify a growing commitment to coordinated maritime security in the region. Whether or not initiatives such MSSI are more symbolic than functional is yet to be determined. But in light of international pressure to protect the vital straits, any cooperative operation should be seen as a success, or at least a start down the right track.[140]

d. *Regional Cooperation Agreement on Combating Piracy and Armed Robbery*

A Regional Cooperation Agreement on Combating Piracy and Armed Robbery (ReCAAP) was reached by sixteen nations (ASEAN members plus China, South Korea, Japan, Bangladesh, India, and Sri Lanka) in November 2004. ReCAAP, proposed originally by Japan, will maintain databases, conduct analysis, and facilitate information sharing to members via an Information Sharing Center (ISC) to be built in Singapore. Proponents point to ReCAAP as a positive step for the region because it is a pan-Asian effort to deal with piracy. Critics point out that after a long negotiation period, ReCAAP emerged as a non-binding, externally funded organization which will only collate voluntarily submitted information.[141] To date, ReCAAP has been signed by eleven of the sixteen nations and will soon enter into force.

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[139] Graham Ong and Joshua Ho, "Maritime Air Patrols, the New Weapon against Piracy in the Malacca Straits," *Institute of Defense and Strategic Studies Commentaries*, no. 70 (13 October 2005).

[140] Bradford, "Age of Terror," 9.

[141] Ibid., 28.

3.   **International Initiatives**

a.   *Convention for the Suppression of Unlawful Acts)*
        Against the Safety of Maritime Navigation

The IMO sponsored 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation was an indirect offshoot of the *Achille Lauro* hijacking. Ratification gives signatories the right to prosecute criminals caught in their own territorial waters for unlawful acts, such as piracy, committed in jurisdictions of other signatories. The convention would be vital for combating crimes and other crimes because it would apply to attacks committed in ports, territorial waters, or international seas. The convention makes distinction for the motive of the perpetrator, so maritime terrorism and violent piracy would both be infractions under the SUA.

The United States and other maritime powers such as Canada, Australia, China, Japan, and European nations have ratified the SUA. To date in Southeast Asia, only Singapore, Vietnam, the Philippines, Myanmar, and Brunei have ratified the Convention. Other nations fear that ratification would compromise national sovereignty and potentially allow foreign forces to pursue pirates, terrorists, and maritime criminals across territorial borders.[142] Even if all parties concerned ratified the SUA, its definition of offenses may only pertain to serious incidents such as vessel hijackings. Most Southeast Asian nations are more concerned about the more common forms of maritime robbery.[143]

b.   *Five Power Defense Arrangement*

The Five Power Defense Arrangement (FPDA), a Cold War holdover comprising Malaysia, Singapore, Great Brain, Australia, and New Zealand met in June 2004 to reorient the organization towards nontraditional maritime security and counter-terrorism. The meeting resulted in an FPDA anti-terror exercise.[144]

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[142] Raymond, "Piracy in Southeast Asia," 20.

[143] Young and Valencia, 276-277.

[144] FPDA exercise named Bersama Lima 2004, involved tracking and boarding a hi-jacked vessel in South China Sea. Ho, "Maritime Counter-terrorism," 6.

c.   *International Ship and Port Facility Security Code*

In 2002, the IMO introduced the International Ship and Port Facility Security Code (ISPS Code) which outlined detailed security measures for worldwide shipping companies, port authorities, and governments. The ISPS Code is one of a number of amendments to the 1974 Safety of Life at Sea (SOLAS) Convention.[145]   ISPS Code applies to vessels over 300 GT, international port facilities, passenger ships, and mobile offshore drilling units. This may be viewed as a shortcoming since fishing boats, tugboats, and domestic-only trade vessels are immune. ISPS has three security levels - normal, heightened, and exceptional - which require different measures. Singapore finished ISPS implementation ahead of the July 2004 implementation deadline.

Bringing ships and ports up to the ISPS Code means implementing a number of security measures such as performing routine checks, assessing infrastructure, submitting security plans, assigning security personnel, controlling access, monitoring cargo and personnel, ensuring ready communications, and installing certain security equipment. More than 21,000 ships and 6,000 ports will be affected by the ISPS Code. The IMB Director reported that some "highly regarded industry figures" have complained that procedural compliance can be a burden and distraction from primary duties, such as navigation and cargo care-taking. Many states lack the resources to implement full ISPS standards. Even in cases where security plans are in place, officials fear that the implementation of ISPS procedures may rest with low ranking, untrained crewmembers and therefore devolve into a "box ticking" exercise.[146]   Enforcement of ISPS Code also varies from state to state. Progress in this area has been slow because external assessment is not required.   With self-assessment as the norm,

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[145] Catherine Raymond, "The Challenge of Improving Maritime Security," *Institute of Defense and Strategic Studies Commentaries*, 9 December 2004.

[146] Mukundan, "Piracy Threat," 2004; International Maritime Organization homepage. <www.imo.org> accessed May 2006.

evaluating ship controls is especially problematic. The ISPS Code continues to proliferate fairly rapidly, but until formal evaluations are institutionalized and the human element addressed, effectiveness will be difficult to measure.[147]

d.   Secure Trade in the APEC Region

Asia Pacific Economic Cooperation (APEC) convened its fourth "Secure Trade in the APEC Region" (STAR) conference in February 2006. APEC, designed as an economic cooperative, has in many ways been more action-oriented in the maritime security realm than ASEAN.   STAR aims to create and enhance public-private partnerships to promote secure trade initiatives in all transportation modes.

Each APEC participant, including the Southeast Asian states, has submitted a STAR plan of action complete with implementation milestones for APEC frameworks and other planned measures. There are numerous initiatives in work.   Maritime trade programs include identification of high risk cargo, container screening, container protection, supply chain security, port and ship security, and cooperation enhancement in fighting piracy.[148]   APEC programs combine elements of ISPS, Container Security Initiative (CSI, described below), and other trade security programs.

e.   Sponsored Forums

The Shangri La Dialogue is just one example of the many dialogue conferences held in Southeast Asia. Started in 2002 by London's Institute for International Strategic Studies, the annual event held in Singapore's Shangri La Hotel is designed as another avenue to promote Asian defense dialogue. The dialogue comprises key governmental officials and Track II participants, and covers a broad range of regional and global security issues.   There are numerous other security conferences, such as the "Counter-Terrorism Expert's

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[147] "Maritime Security Status Conference Report," (Copenhagen: January 2005).

[148] *"STAR Conference Reports,"* (Report of Fourth STAR Conference, Hanoi, APEC, 2006). <APEC.org> accessed May 2006.

Conference" held in the Philippines in April 2006. Other meetings and workshops focus more directly on maritime security, such as the IMO sponsored maritime security meeting planned for later this year in Malaysia.

D. FOREIGN STATE EFFORTS

1. Japan

Total Attacks	In Southeast Asia	From Rest of the World
1989-2002	127	55

Table 4.   Piracy against Japanese Vessels[149]

As Table 4 depicts, Japan has a vested interest in combating piracy in Southeast Asia. Accordingly, Japan has been the leading international state in promoting maritime security in Southeast Asia. At the 1999 ASEAN summit, Japan's Prime Minister Obuchi pitched a multinational coast guard, dubbed the "Obuchi Initiative." Japan offered to contribute forces from its Japanese Coast Guard (JCG) which was technically under civilian control, to alleviate concerns about a resurgent militaristic effort. Japan suggested other members participate, including China, South Korea, Indonesia, Malaysia, and Singapore. After being initially well received, the Obuchi Initiative met resistance from China and from a number of Southeast Asian states that refused to allow foreign armed vessels patrol their territorial waters. Political opponents of the initiative were quick to remember Japan's brutal wartime occupation and others saw the proposal as a just ploy for Japan to counter China's growing regional influence. Though the political hurdles associated with the venture proved insurmountable, Japan has successfully built some bilateral relationships.[150]

In the past five years, Tokyo has convened numerous international conferences and organized a series of expert workshops to address maritime problems. Japan has also provided physical support, patrolling jointly with India and Malaysia and dispatching the JCG for visits to Singapore, the Philippines,

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[149] Chaikin, 135.

[150] Chaikin, "Piracy in Asia," 131-137.

Thailand, Brunei, Indonesia, Malaysia, and Vietnam. The JCG has conducted anti-piracy exercises with Thailand and the Philippines. Japan is materially assisting Indonesia with development of the Indonesian Coast Guard, reportedly as compensation for Indonesia's participation in bilateral JCG exercises. Japan is also advising Malaysia on the formation of the MMEA and on bringing ports up to ISPS Code.[151]

Although Southeast Asian states have responded with caution to Japan's maritime security proposals, such as ReCAAP and the Obuchi Initiative, the Japanese have successfully heightened regional awareness, provided training, equipment, and funding, and engaged regional forces in joint exercises. Discourse on the threat of piracy and maritime terror is expanding in all Asian states. Economic recovery in the region should result in the allotment of more security resources and a higher priority for anti-piracy efforts. Even with these positive trends, complete multilateral international cooperation will occur only when state interests are aligned, and in Japan's case, Southeast Asian nations allay fears of losing sovereignty and influence to Japan.[152]

2. China

China's relationship with Southeast Asia can be described as an ever-growing economic interdependency. China and ASEAN have agreed to complete an economic trade free area (FTA) by 2010. The FTA, launched in 2002, has already generated a $50 billion increase making ASEAN China's fourth largest trading partner. Maritime security-wise, China and ASEAN signed a Memorandum of Understanding on Cooperation in the Field of Non-traditional Security Issues in 2004. China is also part of ReCAAP. China has made slight progress on resolving territorial disputes in the South China Sea, the 2000

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[151] Valencia, "Piracy and Politics in Southeast Asia," 106-107; John Bradford, "Japanese Anti-piracy Initiatives in Southeast Asia," *Contemporary Southeast Asia* 26, no. 3 (2004): 499.

[152] I Valencia, "Piracy and Politics," 500-503.

demarcation of the Beibu Gulf with Vietnam is offered as an example. More recently in 2005, China, the Philippines, and Vietnam signed a tripartite agreement for a joint maritime survey of certain South China Sea areas.[153]

Militarily, China and the Philippines participated in a joint Search and rescue (SAR) tabletop exercise in 2004. In November 2005, two Chinese ships participated in a joint SAR exercise with Indian, Thai, and Pakistani navies, marking China's first overseas exercise inside the territorial waters of the three nations.[154] More meaningful cooperation is primarily hindered by a lack of political trust and territorial disputes. The mutual economic interests of China and Southeast Asia places maritime security in the best interest of both and may enrich bilateral and multilateral relationships into more strategic partnerships.

3. Australia

Australia is assisting the Philippines with surveillance and plans to begin patrolling the Sulu and Celebes Seas in search of terrorists crossing between Indonesian and Philippines. Based on the statements of two JI fugitives who trained in the southern Philippines, the hundreds of tiny islands in the archipelago are refuges for terrorists who cross the border at will. According to the Philippine National Security Advisor, as many as 40,000 Indonesians could be residing in Mindanao.[155] The Royal Australian Navy has actively participated in command-level sea lanes security exercises with a number of regional states.

Australia and Indonesia also have good working relationship regarding anti-terrorism. The countries have routinized police-to-police liaison. Together, both nations convened the Regional Ministerial Meeting on Counterterrorism in 2004 and are establishing a Law Enforcement Cooperation Center in Jakarta. Australia has extended its maritime security zone into Southeast Asian waters to

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[153] Guo Xinning, "Anti-terrorism, Maritime Security, and ASEAN-China Cooperation: A Chinese Perspective," *Institute of Southeast Asian Studies* (December 2005).

[154] "Chinese Navy's First Joint Exercise Abroad," *People's Daily Online*, 15 November 2005.

[155] "Southeast Asian Waters Still Insecure," *Center for Strategic and International Studies Transnational Threat Update* 3, no. 11 (October 2005).

show its strong support for improving regional security.[156]   Australia remains a strong US ally in the region, which facilitates U.S. security coordination with the Philippines, Malaysia and Indonesia.

E.   UNITED STATES EFFORTS IN SOUTHEAST ASIA

> There are on-going challenges with terrorists. .. it's clear to me that the nexus of this challenge in the Asia Pacific regions is in Southeast Asia … Admiral William J. Fallon, United States Pacific Command.[157]

After 9/11, the United States declared Southeast Asia the frontline for the War on Terror in the Pacific. Officials were specifically concerned about the threat of maritime terror, especially in the Malacca Straits, and have initiated a substantial number of policies to address security in that region. Current terrorist activities in the Sulawesi Sea region between the Philippines, Malaysia, and Indonesia have also prompted U.S. participation, particularly military support as part of Operation Enduring Freedom-Philippines in the southern Philippines. Winning the War on Terror is the highest priority for the United States Pacific Command (PACOM).

1.   U.S. Presence

The United States has made counter-terrorism its number one priority in Southeast Asia. After 9/11, the United States and India used warships to escort particularly vulnerable ships, such as LNG tankers, through the Malacca Straits in 2001 and 2002. These efforts were greeted with suspicion by some states, seen as an attempt to completely internationalize the straits. In light of the U.S. global war on terror, others felt that a U.S. military presence in Southeast Asia may upset the large Muslim community. On the legal front, authority to take protective action inside jurisdictional waters of other states would only apply to

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[156] Bradford, "Age of Terror," 22.

[157] William Fallon (Discussion at Media Roundtable, Canberra, 23 September 2005).

similarly flagged vessels. Considering that the regional stakeholders have not resolved the question of jurisdictional authority, informal U.S. presence served to exacerbate the problem. [158]

2. Regional Maritime Security Initiative

In 2003, the United States introduced the Regional Maritime Security Initiative (RMSI) in Singapore. The RMSI was conceptualized as an architecture for promoting cooperation and information sharing between voluntarily participating nations. The United States was prepared to assist any Southeast Asian nation that asked for help in developing a capacity to deal with illegal activities. Broad in scope, the RMSI among other items, proposed to authorize U.S. forces *to cooperate* with local nations in the pursuit of pirates and maritime terrorists, while respecting sovereignty. The RMSI addressed transnational maritime threats by emphasizing information sharing, cueing of emerging threats, contributing to security of international seas, and most importantly, creating an environment which is hostile to terrorism and other criminal activities. The RMSI attempted to establish protocols and procedures to integrate coast guard and navy operations thus eliminating "seams" at sea.[159]

Singapore and Thailand welcomed the initiative. Malaysian and Indonesian officials reacted with strong rhetoric to reassert sovereignty when local papers incorrectly reported that the PACOM Commander had testified to Congress that special forces and marines would autonomously deploy in small-craft to protect the Malacca Straits.[160] Ironically, misgivings by Indonesia and Malaysia over RMSI may have prompted cooperation anyway. Foreign ministers from Malaysia and Indonesia met in May of 2004 to discuss the U.S. proposal. Shortly thereafter, Malaysia announced that it would float its own version of the U.S. coast guard to patrol and safeguard the Malacca Straits. At the same time, Indonesia's Naval Chief announced that he would set up a joint patrol with

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[158] Young and Valencia, 278-280.

[159] Robert Wohlschegel, Curtis Turner and Kent Butts, "Maritime Threats Workshop Issue Paper," *U.S. War College Center for Strategic Leadership* 09-04 (October 2004): 2.

[160] Bradford, "Age of Terror," 18-19; Thomas Fargo (Press Conference with Thai National Media, Bangkok, 25 June 2004).

Malaysia to safeguard the straits. The Navy Chief also stated that U.S. patrols were not needed; however intelligence exchanges, equipment, and training assistance would be welcomed.[161]   Sovereignty and international involvement are two issues which the United States must be treat delicately, as illustrated by Malaysia's and Indonesia's objections to the formation of the RMSI.

3.   Proliferation Security Initiative

A more formal measure being undertaken by the United States is the Proliferation Security Initiative (PSI). Eleven core members including the United States, Australia, Japan, and Singapore founded the PSI, announced in May of 2003 by President Bush. In under three years the membership has climbed to over 70 nations. The United States and other participants under the PSI, seek to interdict ships carrying materials involved in the manufacture or delivery of WMD's and bound for or from nations "of proliferation concern." "States or non-state actors of proliferation concern" are determined by PSI participants and generally refer to actors engaged in proliferation through (1) efforts to develop or acquire chemical, biological, or nuclear weapons or associated delivery systems; or (2) transfers of WMD or related materials. If a shipment is determined to be carrying WMD or related materials to or from a state of concern, PSI participants could seek consent to interdict that vessel, even on the high seas.[162] The PSI specifically states that interdictions will be undertaken consistent with existing international law and frameworks, but questions of legality may still arise. All nations are not prohibited from transporting nuclear technology or explosives, and all non-commercial ships have immunity from other nations when on the high seas. Some argue that the PSI could also undermine freedom of navigation rights granted under UNCLOS. The United States has yet to ratify UNCLOS but has long argued for navigational freedoms and innocent passage.[163]

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[161] Kuppuswany, "Straits of Malacca."

[162] "Proliferation Security Initiative Frequently Asked Questions," (Washington, DC: Bureau of Nonproliferation, 11 January 2005).

[163] Valencia, "Piracy and Terrorism in Southeast Asia," 89-93.

4. U.S. Bilateral Arrangements

Like Japan's proposal for a regional coast guard, the United States cited piracy as a reason to move away from bilateral to multilateral military initiatives. Notwithstanding, a number of important bilateral relationships continue. One highlight of cooperation is the U.S. Joint Interagency Task Force - West (JIATF-W). Under the task force, prototype Interagency Fusion Centers (IFC) have been established in Thailand, Indonesia and the Philippines.[164] IFC's focus on preventing narcotics trafficking and other transnational crimes, but the underlying theme is information sharing and coordination between the United States and its hosts.

In 2005, PACOM's Cooperation Afloat Readiness and Training (CARAT) exercises with Indonesia, Brunei, Malaysia, Thailand, and Singapore focused on Maritime Security Operations and Maritime Interdiction Operations. Exercise objectives included the enhancement of interoperability and communications between participants with emphasis on maritime security against terrorism and piracy, and the development of surveillance, and search and seizure capabilities. U.S. Defense Learning Institutes such as the National Defense University and Center for Strategic Leadership have also played a role in promoting dialogue between regional and U.S. military leaders in an effort to broaden strategic partnerships.[165]

In 2006, CARAT exercises will be hosted by Indonesia, Singapore, Brunei, Thailand, Malaysia, and the Philippines. In addition to conducting maritime law enforcement and search and rescue training with the host nation forces, Southeast Asia Cooperation against Terrorism (SEACAT) exercises will be conducted. SEACAT focuses on refining maritime security skills, including training related to boarding team tactics and techniques, small boat skills,

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[164] William Fallon (Testimony of Commander, U.S. Pacific Command to Senate Armed Services Committee , Washington, DC: 8 March 2005)

[165] Bert Tussing, Richard Winslow, and Curtis Turner, "Southeast Asia Subject Matter Expert Exchange," *Issue Paper for Center for Strategic Leadership* 04, no. 4 (July 2004): 1-4.

boarding-at-sea and joint boarding capabilities. The focus is to foster cooperation and exchange ideas between the various nation's Naval and Coast Guard forces.[166]

In addition to CARAT and SEACAT, the United States has capitalized on Cobra Gold, a bilateral military exercise co-sponsored by Thailand. Since 1999 when Singapore was enticed to join, Cobra Gold has expanded to include various other Asian nations each year. The exercise demonstrates joint and multinational capability and interoperability in the performance of UN sanctioned peace operations and contingency response. The annual exercise is a principal event for building regional capabilities to respond to security threats of humanitarian relief efforts.[167] 2006 participants included Singapore, Indonesia and Japan.

Another multilateral PACOM led exercise is the Multinational Planning and Augmentation Team (MPAT). MPAT is a command level exercise aimed at facilitating response to crisis in the Asia-Pacific region. MPAT goals include the rapid and effective establishment of a multi-national task force headquarters, improved coalition interoperability and effectiveness, and unity of effort. Since 2000 when MPAT was initiated, the participation has grown from five nations to 33 nations in 2005. Other Southeast Asian exercises such as Cobra Gold may employ some level of participation from the MPAT.[168]

Additionally with Thailand and the Philippines, the United States conducts a Maritime Sea Exercise. The multi-lateral exercise between the U.S. Navy, the Republic of the Philippines Navy, and the Royal Thai Navy focuses on maritime surveillance procedures and multi-national interoperability.

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[166] "Coast Guard Cutter Stops in Honolulu on Way to Asia," *USCG Press Release*, 28 April 2006.

[167] William Fallon in *Testimony*; PACOM J7 Website, accessed on 4 June 2006 at <https://www2.apan-info.net/apan/Default.aspx?alias=www2.apan-info.net/apan/cg07> accessed May 2006.

[168] Scott Weidie, *MPAT Information Paper*, (Honolulu: PACOM, 1 June 2006). Accessed on 6 June 2006 at <https://www2.apan-info.net/mapt/> accessed May 2006.

The United States has recently made large strides with Indonesia. As a response to 9/11, the United States began supporting Indonesian police in various technical and training matters, to the tune of $47.5 million from 2001 to 2004.[169] U.S. assistance after the catastrophic 2004 tsunami also precipitated a new spirit of cooperation between the two nations. During the relief effort, U.S. officials observed first-hand the state of ill-repair of Indonesia's military. The United States is now supporting efforts to professionalize and reform the Indonesian military as part of the comprehensive "capacity building" program in Southeast Asia.

In December 2005, the United States completed the process of restoring military relations with Indonesia by making available Foreign Military Financing (FMF). In February, the International Military Education and Training program was resumed with Indonesia for the first time since 1991.[170] These programs specifically targeted communications and surveillance capabilities of the Indonesian military, especially along the Malacca Strait.[171] The United States has directly supported a number of maritime enforcement measures and plans on providing ten 31-foot patrol boats for port security in 2006 along with $1 million in FMF for the Indonesian Navy.

The United States and Singapore are major security cooperation partners, as outlined in the 2005 "Strategic Framework for a Closer Cooperation Partnership in Defense and Security."[172] The Strategic Framework addresses key areas in bilateral defense cooperation. The U.S.-Singapore Capacity Building Measures on Regional Cooperation in Maritime Security of March 2005, discusses multilateral cooperation, operational solutions, shipping and port security, and security technology programs. The agreement fosters information

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[169] Report 05-793, *Southeast Asia* (Washington, DC: Government Accounting Office, 2005), 16.

[170] Sheldon Simon, "U.S.-Southeast Asia Relations: Military Relations Restored with Indonesia, While U.S. Passes on the First East Asia Summit," *CSIS Comparative Connections* (Winter 2005-2006).

[171] Simon, "Military Relations".

[172] "Fact Sheet on the U.S.-Singapore Strategic Framework Agreement," *Inside Defense.com- Defense Plus*, 2006.

sharing, establishing Maritime Domain Awareness (MDA), initiating joint maritime exercises, cooperating on consequence management, and sustaining capacity building operations.[173]

The United States has important bilateral security arrangements with the Philippines that aim to directly counter terrorism. Maritime security training efforts include Operation Fusion Piston which covers various aspects of maritime law enforcement in support of counter-narcotics and counter-terrorism operations (e.g., first aid, boat maintenance, communications, boat handling, evidence preservation, patrolling, insert/extract methods, reconnaissance, and mission planning). Representatives from the Navy SEALS, JIATF-W and other U.S. agencies conduct the training for members of the Philippine Army, Navy and Coast Guard.

The United States has deployed over one thousand troops to the southern Philippines to advise military units in the fight against ASG.[174]

5. Container Security Initiative

The CSI and other global, U.S.-led technical initiatives will be described in more detail in Chapter IV. In Southeast Asia, Singapore, Port Klang and Tanjung Pelepas in Malaysia, and Laem Chabang in Thailand have implemented the CSI.

F. ANALYSIS OF MARITIME SECURITY POLICIES

Sections B through E above have described security efforts on an individual basis. Each policy is a component of the universal maritime security environment. In fact, much of the dialogue on countering piracy and/or terrorism revolves around "coordination" of efforts. If nothing else, the threat of terrorism and the actual attacks in Southeast Asia and around the globe have brought about a realization that security is no longer a unilateral proposition. The Malacca Straits have always been strategically important to world trade and travel. The rise of piracy in the 1990's provoked a number of security efforts.

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[173] "ASEAN Security Community," 15-16.

[174] Bruce Vaughn, "Terrorism in Southeast Asia," *CRS Report for Congress* (7 February 2005): 19-27.

But the war on terror, largely spearheaded by the United States, has prompted cooperative security efforts on unprecedented levels. Different than nation-state treatises of old which intended to balance military power, counter-terrorist efforts seek to harmonize the public and private sectors against a common enemy, as illustrated by the ISPS Code.

1.   Causes for a Decrease in Piracy

Numerically, total piracy events, including at-sea attacks, have declined over the past three years in Southeast Asia (see Tables 1 and 2 above). Malacca Straits' attacks numbered only twelve in 2005 compared to 38 in 2004 and 28 in 2003. Attacks in Indonesian waters declined form 121 and 94 in 2003 and 2004, respectively, to 79 in 2005. The three reported attacks in Malaysian waters in 2005 represent the fewest since 1993.[175] Numbers of attacks in the territories of the Philippines also declined. Whether due to the emphasis in maritime security by individual states or the increase in cooperative efforts, or both, the result has been a definite trend towards fewer total pirate attacks.

Singapore has been the most aggressive in securing its waters and in pursuing multilateral support to secure the surrounding straits. This is cogent since Singapore's economy is dependent the international flow of commerce through its port. Though piracy in the Singapore Straits has climbed over the last two years (eight and seven events compared to two and five the previous two years), port security remains effective against maritime crime (zero reported piracy incidents in port). But Singapore's main concern is the threat of terrorism not piracy.

The Singaporean government has taken seriously the threat of Al Qaeda to strike at the United States *and its allies*. In response, Singapore has been ahead of the region in implementing unilateral efforts, such as its harbor tracking system (See HARTS, Appendix A). Singapore has also led the way in adopting international efforts as evidenced by the swift implementation of ISPS standards

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[175] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005).

and CSI.   Singapore has staunchly supported international efforts to assist in security, while at the same time promoting ARF as the key instrument for security dialogue and cooperation.[176]

Singapore's partiality for involving external bodies to actively participate in maritime security has not always been supported or appreciated by the other littoral states, most notably Indonesia and Malaysia.   Singapore has even employed private security companies to police the Malacca Straits, unbeknownst to Malaysia and Indonesia.[177]   But nonetheless, the cooperation between the states has been increasing. Singapore-Malaysia relations have improved since 2003, benefiting regional economics and security. Singapore-Indonesia relations have also begun to warm since Indonesia's elections of 2004.   In the past, Malaysia and Indonesia have preferred bilateral cooperation.   Today, the Malsindo joint surface and air operations along with improved communications and information sharing between the guardians of the straits have enhanced awareness of the pirate threat.

The increase of maritime security by Indonesia can partially be attributed to nation-wide crackdown on terrorism.   In the past two years, Indonesia claims to have captured over 200 terrorists, most recently 2005 Bali bomber and JI leader Azhari bin Husin.   But even the fear of terrorism can not remove all barriers to international cooperation. The seemingly lenient sentence given to JI spiritual leader, Abu Bakar Bashir, highlights the complexity of dealing with transnational crime.   Commenting on Australia's complaints regarding Bashir's upcoming release in June 2006, Indonesia's Justice Minister stated that "Indonesia is a sovereign country.   Therefore there should not be any intervention from the outside."[178] Piracy, even less controversial and emotional a topic than transnational terrorism, has evoked much the same type of national

[176] Baker, 159-167.

[177] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005), 31.

[178] Niniek Karmini, "Indonesia Claims Most Terror Captures," *Guardian - Unlimited*, 24 April 2006.

response.   While individual and cooperative security progress has been measurable, sovereignty issues reign supreme as the main force preventing more cooperative operations.

Besides gaps in policies attributable to sovereignty "borders at sea," Indonesia has had a difficult time balancing external security policies with internal political and economic demands.   Indonesia's vast geography and ethnic tensions make it more difficult for the state to focus solely on the maritime domain.   But pressures and incentives from the international community along with the desire to take a leading role in ASEAN by promoting the ASEAN Security Community have prompted Indonesia to step up its unilateral protection of the Malacca Straits.[179] More robust air and sea patrolling by Indonesia have been effective in reducing piracy.[180]

Malaysia like Indonesia seeks to limit direct international involvement in the Malacca Straits.   While Singapore perceives itself as a potential target of transnational terrorism, Malaysia feels that international forces in the region will provide a motive for terrorists to attack.   As an indirect measure, Malaysia is receiving bilateral capacity building, largely from Japan, in an effort to continue strengthening maritime security.   Malaysia's steady bolstering of patrolling by maritime law enforcement agencies over the past few years, and the new Malaysian Maritime Enforcement Agency have played a distinct role in reducing piracy.[181]

2.   Causes for Increased Maritime Security

The majority of Southeast Asian states are on the rise economically.   The littoral states understand the importance of keeping commerce flowing and have thus encouragingly cooperated toward the goal of maritime security.   Though all states generally condemn piracy and terrorism, there are some distinct reasons why the states differ on how each is treated.   Singapore has a small area to

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[179] Baker, 89-95.

[180] International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005), 29-30.

[181] Baker, 118: International Maritime Bureau, *Piracy and Armed Robbery Against Ships,* (2005), 29-30.

protect but a relatively large security budget. Thus technical and procedural polices are emplaced rather quickly. Singapore understands the sovereignty issue, but also understands that one catastrophic maritime terrorist attack could cripple its economy. Thus, Singapore aggressively seeks security in a multitude of polices, many of which conflate piracy and terrorism.

Malaysia and Indonesia are more cautious security seekers. The recent warming of relations with other ASEAN states along with economic, international, and domestic concerns for terrorism, have spurred regional maritime cooperation. But both states are reluctant to combine piracy and terrorism under one umbrella policy, fearing the influx of international involvement that such a policy could precipitate. Instead, capacity building efforts from Western and Eastern powers have been accepted as a method to enhance security without "stepping on toes." Thailand and the Philippines have not made maritime security a priority. Thailand's internal violence and porous borders have occupied its government. The Philippines is aware that improving maritime security would also benefit its anti-terrorist campaign but has not yet built an effective sea capability. Underlying and important to the security of all Southeast Asian nation's is the sharing of information, which has generally trended upward. Regional and multilateral initiatives like the 16 nation ReCAAP center, in additional to bilateral efforts like PACOM's three fusion centers, are an obvious improvement in maritime security. Whether to quicken a response or warn of a threat, interstate communication and information passing is an integral part of effective operations.

In the private sector, mutual economic interests have also been primary drivers of maritime security efforts. Lloyd's classification of the Malacca Straits as a "war risk" zone and the resultant increased insurance costs added economic pressure to the region. Other international business communities have also applied pressure to enhance maritime security because of the vital economic role played by the ports and waters of Southeast Asia. The commercial industry itself has become intricately involved with the security effort. APEC's STAR and the U.S.'s CSI are two examples of commercially based security programs.

With regard to physical factors, Southeast Asian governments have recognized that its ports and choke points are vulnerable. Most of the policies studied above are designed to improve security in the straits. Additional radar, communications, information sharing, air and sea patrols, and escorts not only contribute to port and strait security, but may also reduce criminal sanctuaries in the archipelagos. Efforts to streamline and reform militaries and law enforcement agencies, especially by Malaysia and Indonesia, may reduce response time as well as governmental complicity. While elimination of all physical vulnerabilities in a congested maritime environment may be impossible, Singapore's traffic control and port segregation efforts are a step in the right direction.

G. CONCLUSION

The trend in Southeast Asian maritime security is towards more cooperation. Despite long-standing and active maritime territorial disputes in the South China Sea, Singapore Strait, and Sulawesi Sea between a host of nations including China, and an attitude of self-sufficiency, a number of cooperative efforts have been established on bilateral and multilateral levels. Having stated that, it would be senseless to imagine that traditions of respecting sovereignty, traditions promoted by ASEAN and the nations themselves, will disappear due to any real or perceived threats.

Convincing Southeast Asian states, especially those in control of the Malacca Straits, to allay fears and suspicions about the intentions of foreign naval powers is a lingering challenge. With regard to foreign powers, memories of the colonial era have not completely died. Most Southeast Asian states have waged bloody wars of independence and do not want foreign navies policing their territory. Japan has been one of the strongest proponents for multi-lateral anti-piracy security but Japan's World War II exploits are also remembered. Even though Japan has used its civilian-controlled Coast Guard as the spearhead for partnerships, complete trust has not been achieved.

Regionally, suspicions and dislikes swelled during the Cold War. The political turmoil in Southeast Asia was fervent in spite of the fact most nations

attempted to remain "officially" non-aligned with Western and Soviet powers. At the same time, ethnic and religious separatism movements embroiled states like Indonesia and the Philippines. ASEAN has assuaged much of the interstate tension, albeit via a mantra of peaceful co-existence rather than active and interdependent co-operation.

Southeast Asian states take pride in policing one's own territory. The recipe of pride combined with a reticence towards regional and international jointness has obviously not coalesced into the full cooperation needed to optimally maintain security. Consequently, most Southeast Asian states oppose a definition of piracy that would allow foreign nations to enter territorial waters without alliance. By ratifying agreements like the SUA, the door could be opened for operational cooperation between member states. Southeast Asian states could benefit from the formal links established with blue water navies, such as Japan and the United States. Agreements would also compel member states to formalize prosecutorial and extradition arrangements.[182]

Many Southeast Asian states do not have sound and stable enough domestic footing to adequately enforce maritime security and counter-terrorism policies. However, this trend is improving. Numerous modernization programs are underway, many bolstered by capacity building measures from foreign nations like Japan and the United States. In the case of Indonesia, a state with an acknowledged international terrorist problem, the aggressive pursuit and capture of many terrorists, especially the Bali bombers of 2005 including the killing of JI leader Azhari bin Husin, is promising.[183]

On the international front, stakeholders are pursuing more presence in Southeast Asia but must do so in a non-intrusive manner. The United States admittedly is seeking to develop more regional expertise, and more persistent intelligence based less on technical collection and more on human interface. Nations also continue to pursue multilateral security agreements via the many

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[182] Ong, "Ships Can be Dangerous," 19-20.

[183] "Repentant Terrorists," in airing of *CNN Insight* (22 December 2005).

dialogue avenues available. There has been a distinct effort, especially by the United States, India, and Japan, to increase multilateral military cooperation thorough exercises and advisory partnerships.

This chapter concludes that progress seems to be mounting in the maritime security theater of Southeast Asia. Cooperation is slowly increasing, operationally and conversationally, and numbers of piracy events and maritime crimes are decreasing. The challenge for the United States and other interested stakeholders is to ensure that Southeast Asian maritime security efforts become self-sustaining as opposed to short-lived. Also, the rise in violent and organized pirate tactics has not been sufficiently addressed. The increase in organization may indicate that maritime security policies are aimed more at responding to incidents rather than identifying and remedying the sources of violence. Hopefully, the renewed set of capacity building initiatives and domestic reformation plans will allow for more long-term and deep-rooted preventative measures.

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IV. MARITIME SECURITY IN THE UNITED STATES

Maritime security is best achieved by blending public and private maritime security activities on a global scale into an integrated effort that addresses all maritime threats. The new National Strategy for Maritime Security aligns all Federal government maritime security programs and initiatives into a comprehensive and cohesive national effort involving appropriate federal, state, local, and private sector entities.[184]

A. U.S. MARITIME SECURITY POLICIES

This chapter provides an overview and evaluation of U.S. maritime security. It is a mistake to think of maritime security as a domestic problem. The world economy moves by way of the maritime infrastructure. The shipping industry typifies globalization more than any other industry; a ship calling at a U.S. port may have been built in South Korea, registered in Panama, owned by a Greek company, operated by a Japanese carrier, captained by a German, and crewed by Filipinos.[185] Unquestionably, U.S. maritime security is conjoined with the maritime security domains from around the globe.

The 1985 *Achille Lauro* hijacking was not the first incident of maritime terror, but the fact that an American was killed and the ease at which the ship and passengers were seized astonished the U.S. government. The *Achille Lauro* incident raised concerns which may still be valid today. In light of a recent port security outrage involving the purchase of five U.S. terminals by the United Arab Emirates (UAE), the threat of maritime terror is once again prominent in the headlines. Is the threat real?

Some experts believe that the arrests of al-Nashiri and other key members of Al Qaeda have significantly disrupted the organization's future ability to conduct coordinated maritime terrorist attacks. Furthermore, there are fewer symbolic targets, the type preferred by Al Qaeda such as the New York's World

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[184] *National Strategy for Maritime Security*, ii.

[185] John Frittelli, "Terminal Operators and Their Role in U.S. Port and Maritime Security," *CRS Report for Congress* (20 April 2006): 4.

Trade Center, in the maritime sector. Industry experts agree that standalone attacks on vessels would have limited economic impact, with the possible exception in the civilian sector being cruise liners. On the other hand, the maritime domain is rich with tactical targets for drive-by shootings or small-boat attacks, similar to the attack on the *USS Cole*. Many soft civilian targets such as ferries and cruise ships remain extremely vulnerable. Realistically, maritime terrorist attacks can not be ruled out and as land and airborne security measures tighten, more militant groups are turning to the sea for moneymaking and logistical operations.[186]

But it has taken something more than the act of piracy, maritime crime, or even the infrequent maritime terrorist attack to transform the valid concerns of the United States into genuine actions. Proliferation of chemical, biological, and nuclear materials and the spread of technology have made the consequences of terrorist attack in potential, far more severe. The DHS's greatest fear is the detonation of a nuclear bomb in one of our major cities, including major seaports. In the case of a nuclear bomb detonation, little can be done to mitigate damage or improve response, which is why a considerable effort is being made to detect, deter, and prevent threats overseas, at the first line of defense.[187] For that reason, the National Strategy for Maritime Security (NSMS) as cited above, attempts to metamorphose maritime security into a "comprehensive and cohesive national effort," an effort which has proven to be an elusive target over the years.

1.   Importance of Maritime Security

Approximately 95 percent of the U.S. overseas trade by weight and 75 percent by value passes through American sea ports annually, accounting for two billion tons and almost $800 billion in freight. Coastal waterways accommodate over 100,000 commercial fishing vessels. U.S. ferries transport 113 million passengers and 32 million vehicles per year. The widespread use of

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[186] "Maritime Terrorism: Special Report," *Jane's Intelligence Digest*, 20 January 2006.

[187] Michael Chertoff (Remarks by DHS Secretary, Singapore: American Chamber of Commerce, 29 March 2006).

cargo containers, one of the most ingenious but uncelebrated engineering feats of last century, has turned shipping into the means for globalization. Worldwide, there are 121,000 commercial vessels flying 198 flags going to over 10,000 destinations with over 5 billion tons of cargo each year. The container system is designed for efficiency, or "just-in-time" replenishment. About 110 million containers cycle through world ports every year. Approximately 10 million containers, carrying 665 million tons of cargo, arrive at U.S. ports.[188]

The economic importance of maritime commerce can not be overestimated, but perhaps even harder to overestimate is the vulnerability of the maritime domain. In addition to America's 95,000 miles of coastal waterline, there are 12,000 miles of commercially active inland and intra-coastal waterways. Many large population centers and critical infrastructures are located near ports or waterways. More than 141 million U.S. citizens live within 50 miles of the coast. America has over 350 seaports of which 50 major ports account for 90 percent of all tonnage. There are more than 3,700 cargo and passenger terminals, and over 1,000 harbor channels.[189] In America's ports there are over 50,000 commercial calls per year. During Operations Desert Shield and Storm, 90 percent of all military equipment exited from 17 ports. Some analysts estimate that closing U.S. ports for only eight days would cost the U.S. economy over $58 billion.[190] The above statistics rank the maritime system as one of the most critical infrastructures both internationally and nationally.

2. Overview of National Strategy for Maritime Security

The majority of post 9/11 maritime security programs originated from the MTSA of 2002. The key programs mandated by the MTSA included the creation

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[188] Thomas Collins (Statement of USCG Commandant in Hearing before Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity, Washington, DC: Committee on Homeland Security, House of Representatives, 8 June 2005).

[189] John Frittelli, "Port and Maritime Security: Background Issues for Congress," *CRS Report for Congress* (15 December 2004): 1-6; Carafano, "Making the Sea Safer," 5.

[190] Thomas Collins (Statement of USCG Commandant in Hearing before Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity, Washington, DC: Committee on Homeland Security, House of Representatives, 8 June 2005).

of maritime security and response plans, identification of assets at risk, controlled access, assessment of antiterrorism efforts at foreign ports, automatic tracking of vessels, and evaluation and certification of cargo.[191]

In December of 2004, President Bush signed National Security Presidential Directive 41/Homeland Security Presidential Directive 13 (NSPD-41/HSPD-13) which directed that all U.S. Government maritime security programs be coordinated into a comprehensive national plan. The NSMS, signed in September 2005, and eight supporting pillars are based on four key premises:

1) Physical and economic security of the United States depends on secure use of the *world's* oceans.

2) Security of the maritime domain is the collective responsibility of all nations.

3) Security of the maritime domain is a shared responsibility of public and private sectors.

4) Maritime security must address threats from all criminal and hostile activities, such as smuggling, piracy, illegal harvesting, terrorism, etc.

The objectives of the NSMS are also divided into four key components:

1) Prevent maritime terrorist attacks, hostile acts, and criminal activity.

2) Protect maritime-related population centers and critical infrastructure.

3) In the event of an incident, minimize damage and expedite recovery.

4) Safeguard the ocean and its resources, assuring continuity of the maritime transportation and other economic systems.

In order to deal with the sweeping array of threats and meet the momentous goals, the NSMS outlines a holistic approach to maritime security. The NSMS relies on a defense-in-depth or layered strategy which combines commercial, military, governmental, and private programs from around the globe. In addition to geographical defense-in-depth which extends across the globe, the NSMS attempts to functionalize defense-in-depth by embedding security

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[191] *Maritime Transportation Security Act of 2002* (Washington, DC: Public Law 107-295, 25 November 2002).

measures into the layers of commercial and public practices. Beneath the layered defense, the NSMS depends on the National Plan to Achieve Maritime Domain Awareness as the foundation to support the decision-making chain. MDA is "the effective understanding of anything associated with the global maritime domain that could impact the security, safety, economy or environment of the United States."[192]

The importance of international and industry cooperation is apparent. Perhaps no other security program depends more on global cooperation than the NSMS because access to the maritime domain is virtually unlimited. Also obvious is the NSMS reliance on intelligence and information sharing to achieve MDA. Of the eight supporting implementation plans under the NSMS, the achievement of MDA is the framework which attempts to unify efforts across the U.S. Government, civil authorities, private sector, international allies, and foreign trading partners.[193]

3. The NSMS in Concept

One way to conceptualize the NSMS is to envision four phases. First, picture a number of security layers, or measures, such as those discussed in Chapter III. These measures span the maritime domain from naval presence abroad to cargo inspection in U.S. ports, and everything in between. Maritime security measures can be implemented via international conventions, interstate policies, governmental codes and regulations, industry practices, law enforcement procedures, diplomatic or military agreements, technological systems, or other maritime-related means. Indeed, many maritime security measures were already in place prior to 9/11; others were developed shortly after; others are being developed to fill security gaps and meet NSMS objectives.

Second, envision the NSMS as the arrangement or construct that integrates all the security layers. The greatest challenge in the NSMS is to

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[192] *National Plan to Achieve Maritime Domain Awareness* (Washington, DC: Office of the President, October 2005); Craig Bone (Statement on the NSMS before the Committee of Transportation and Infrastructure, Washington, DC: Subcommittee on USCG and Maritime Transportation, US House of Representatives, 24 January 2006).

[193] Bone.

coordinate all security measures, including measures that are the responsibility of foreign actors and assorted agencies, into a "network of interdependent, overlapping and purposely redundant checkpoints to reduce vulnerabilities, as well as detect, deter, and defeat threats."[194]   Coordination with foreign governments is accomplished via the International Outreach and Coordination Strategy, and national non-governmental coordination is accomplished via the Domestic Outreach Plan, two of the eight NSMS pillars. In the end, the goal of the NSMS is to smooth all seams and fill all gaps between the disparate layers of security.

With security measures defined and coordinated, the third phase in achieving maritime security involves threat detection and response. Conceptually, achieving MDA will provide situational awareness via a Common Operating Picture (COP) to all security agencies. The intelligence which comes across the COP will be provided by the Global Maritime Intelligence Integration Plan, the second of eight NSMS pillars. The next pillar of the NSMS, the Maritime Operational Threat Response (MOTR) Plan, covers the actions required to engage the full range of maritime security threats to the United States, including piracy, terrorism, and any other unlawful or hostile act. The MOTR establishes protocols and procedures for coordinating response by the appropriate agency or agencies, such as the FBI and USCG. Coordination is accomplished through a network of integrated command centers at national and lower levels. The MOTR is the NSMS "action mechanism" for preventing maritime attacks.

Fourthly, the NSMS provides for incident mitigation and consequence management via the Maritime Transportation System Security, Maritime Commerce Security, and Maritime Infrastructure Recovery Plans. Together, the NSMS and its eight implementation plans define a broad and overarching strategy for securing the maritime domain. The NSMS is broad in the respect that it addresses all maritime threats, not just terrorism, and encompasses all

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[194] Bone.

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oceans, not just the U.S. coasts and waterways. The NSMS is overarching because it attempts to bridge stakeholders from foreign states, international bodies, professional associations, private companies, non-governmental organizations, and governmental agencies under one strategy.

4. Major NSMS Actors

Patrolling the outer layers of the maritime domain is the U.S. Navy. The GWOT has forced the Navy to develop a more comprehensive posture towards maritime security. With the threat of transnational terror, no longer is the concept of minding "one's own sea lane" the appropriate doctrine. The Navy has directed its worldwide component and joint force maritime component commanders to network globally in support of MDA and combat operations. The U.S. Navy has even amended its third priority to include the integration of multi-national and commercial maritime industry support into MDA. Hand-offs between areas of responsibility, including information sharing as well as physical transitions, must be seamless.[195]

There are multiple major players at the final layer of maritime security. The primary department is that of Homeland Security, with the USCG and Customs and Border Protection (CBP) as its leading maritime security agencies. The DOJ's FBI is also involved in counter-terrorism and anti-crime efforts at America's borders. If military assistance is required, DOD's U.S. Northern Command (NORTHCOM), established in 2002, is responsible for allocating military assets to civil authorities.

Pursuant to the NSMS, National Strategy for Homeland Security, and MTSA, the USCG issued *Maritime Sentinel* in November 2005 as its strategic plan to combat maritime terrorism. Maritime Sentinel incorporates the concepts of active deterrence, threat-based risk management, and layered defense in undertaking three courses of action - achieving MDA, conducting maritime security and response operations, and overseeing the maritime security

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[195] *Department of the Navy Objectives* (Washington, DC: Chief of Naval Operations, 2006); *Commanders Guidance* (Norfolk, Virginia: Fleet Forces Command, 29 September 2005).

regime.[196]   Maritime Sentinel comprises numerous policy, technical, and programmatic initiatives, many of which will be explained below. The key point is that maritime security is an extremely complex and vast mission. Correspondingly, many of Maritime Sentinel's initiatives overlap or leverage security measures from other bodies, rendering agency collaboration and operational coordination as the most significant factors in achieving successful maritime security. For example, the USCG is DHS lead agency for maritime security inside of NORTHCOM's 500 nautical mile coastal jurisdiction, but DOD could also be called to play a lead role. Depending on the location and type of threat involved, NORTHCOM may be required to direct military action with other agencies taking a supporting role.

As stated above, the foundation of the NSMS rests upon achieving MDA. Exact interagency relationships and responsibilities required to implement the *National Plan to Achieve MDA* are still being worked. MDA is envisioned on three levels - global/national, regional, and local. On the global/national level, the National Maritime Intelligence Center (NMIC) collects, analyzes, and fuses inputs from a multitude of sources then disseminates intelligence to major actors in the DHS, DOD, and other federal departments.   At the regional level, area commands such as USCG districts, and Immigration Customs Enforcement (ICE) or CBP command centers receive an operating picture from coastal USCG Maritime Intelligence Fusion Centers (MIFC) and Area Operation Centers.   On the local level, Sector Commands and Joint Harbor Operations Centers (JHOC) disseminate information to port authorities and other tactical action agencies.[197] The COP is the primary method for sharing information between MDA levels and between all U.S. Federal, state, and local agencies with maritime interests and responsibilities.

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[196] *Maritime Sentinel: Strategic Plan for Countering Maritime Terrorism* (Washington, DC: USCG, March 2006).

[197] Scott Beaton, "Maritime Domain Awareness," (Brief presented at Maritime Domain Awareness Working Group, USCG CG-7M, 7 December 2005).

5.   NSMS Implementation - Overseas

a.   *Cargo Security Initiative*

Overseas, DHS's Customs and Border Protection requires all sea carriers (with the exception of bulk carriers) to provide proper cargo descriptions and valid consignee addresses 24 hours before the cargo is loaded on ships destined to the United States. Failure to meet the 24-hour advanced manifest rule triggers a "do not load" flag in the Sea Automated Manifest System.

The CBP initiated the Container Security Initiative in 2002, a core U.S. security program which subjects participatory international ports to container screenings. CBP officials are actually stationed overseas in 26 CSI nations, currently numbering 42 ports with many more in planning stages. CSI aims to identify high-risk containers via risk-based analysis tool known as the Automated Targeting System (ATS). ATS determines which containers should not be on-loaded overseas, which containers require inspection at the foreign or the U.S. destination port, and which containers are considered low-risk and thus allowed expeditious transport. ATS is the keystone on which CSI and U.S. container security rests. The World Customs Organization, EU and G8 nations have all adopted some form of CSI-like security measures.[198]

b.   *Customs-Trade Partnership against Terrorism*

The Customs-Trade Partnership against Terrorism (C-TPAT) is an initiative in which participating companies agree to certify supply chains in accordance with CBP guidelines. C-TPAT encompasses thousands of importers, carriers, brokers, forwarders, manufacturers, ports and terminals. C-TPAT requirements are dependent on business type, but in general, U.S. port and terminal operators must implement (and maintain through their supply lines) the following standards to be compliant: conveyance security, container security, physical access controls, procedural and personnel security, physical security, and information technology security. Businesses that provide verifiable security information are eligible for special benefits such as reduced number of

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[198] "CSI Fact Sheet," (Washington, DC: US Customs and Border Protection, February 2006); "Screening Fact Sheet," Coalition for Secure Ports, 2004 <http://www.secureports.org/>.

inspections and reduced border wait times, specialized security training and advice, reduced inspection rates, exclusion from certain trade-related local and national criteria, and other trade-related programs which generally focus on streamlining border entry.[199]

Security assessments are self-administered and commitments of partners to reach up and down supply chains to increase security are unenforceable. Accordingly, the CBP has a cadre of security specialists which validate C-TPAT participants and possibly remove C-TPAT status from non-compliers. C-TPAT has enrolled over 5,650 companies and has more than 4,700 companies at various stages of application. Almost 1,500 validations have been completed with another 2,300 in work.[200]

c.   *International Port Security Program*

The International Port Security Program is a USCG effort to work jointly with host nations in evaluating the country's overall compliance with the ISPS Code (described in Chapter III). The USCG renders technical assistance and exchanges best practices via on-site visits and dialogue. As of the end of 2005, 43 countries have been assessed, including the U.S. largest trading partner China, and 35 have been found to be in substantial compliance with the ISPS. The USCG is scheduled to assess approximately 45 nations per year, amounting to about 140 trading partners by 2008.[201]

6.   **NSMS Implementation - Securing the Sea Lanes**
a.   *Advance Notice of Arrival*

Shortly after 9/11, the USCG National Vessel Movement Center began operations. To assist the center with tracking, commercial ships weighing 300 GT or more are required to notify the USCG 96 hours in advance of arrival at a U.S. port. The 96-hour notice of arrival (NOA), which equates to 1,500 to 2,000 nautical miles, includes detailed crew, passenger, cargo, and voyage history

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[199] C-TPAT Strategic Plan, (Washington, DC: US Customs and Border Protection, November 2004); Frittelli, "Terminal Operators," 2006, 7-8.

[200] Bone.

[201] Ibid.

information.[202] NOA and additional information, such as data from the CBP's 24-hour advance loading reports, is analyzed using the ATS to identify high-risk containers. The ATS also accounts for crew and vessel illegal activity and the security environment in previous ports. By the time a vessel approaches a U.S. port, the USCG has already determined the amount of attention required.[203] If a vessel is determined to be high risk, the USCG conducts an offshore boarding to ensure security issues are resolved. In addition, random inspections are conducted to add the element of unpredictability. Boarding is done via ship-based or helicopter fast-rope technique.[204]

b. Proliferation Security Initiative

The Proliferation Security Initiative was discussed in Chapter III.

7. NSMS Implementation - Protecting the Coastal Infrastructure

The USCG is the primary DHS agency responsible for safeguarding American port facilities and associated vessel traffic. The CBP is in charge of the security of the cargo entering the United States, as well as ensuring that cargo is legal. Outside of ports, the USCG, and air and maritime units from CBP and ICE are responsible for patrolling and securing the coastlines.[205]

Federal guidelines require terminal operators to maintain basic physical security configurations. The MTSA instructed terminal operators to assess their own security requirements based on cargo and equipment type, and other function-based criteria, and submit a security plan. Plans are reviewed and approved by the USCG and verified annually. In the period between July 2004 which marked the deadline for plans to be in operation and January 2005, the USCG inspected over 3,100 facilities in more than 300 ports. Facility plans provide for various physical safeguards such as fences, lighting, alarms, guards, water patrols, surveillance equipment, and access control. Plans must also

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[202] National Vessel Movement Center, USCG. <http://www.nvmc.uscg.gov/>.

[203] "Secure Seas, Open Ports," (Washington, DC: Department of Homeland Security, 21 June 2004).

[204] Bone.

[205] "Secure Seas, Open Ports."

include periodic drills, exercises, and inspections to test the security environment. Similarly, vessel owners must submit security assessments of their ships, and receive USCG approval. Facility and vessel security plans must be coordinated.[206]

The Transportation Workers Identity Card (TWIC) Program is being implemented by TSA to credential workers at critical transportation hubs, including major ports. The goal of TWIC is to limit access to vulnerable areas by using biometric identification technology. Ports have not implemented TWIC as of yet, but prototype testing has been completed. TWIC is expected to impact the maritime shipping system because access to key areas will be limited to credentialed personnel only. For example, the TWIC must somehow account for personnel entering port facilities via truck and rail.[207]

There are numerous technological systems being applied to the maritime security problem. This thesis is policy oriented and will not provide a detailed appraisal of technology initiatives. Appendix A lists a sampling of major technical programs including initiatives in work or partially underway. There are also various local and state level programs, and public sector programs such as Operations Waterways Watch which encourages recreational mariners to report any suspicious activity.

8. NSMS Implementation - Responding to the Threat

The MOTR assigns overarching responsibilities for threat response. When real-time decisions are required, the United States has a number of options available. Depending on the type and location of threat, DOD Combatant Commands such as PACOM and NORTHCOM or DHS agencies such as the USCG and CBP may be tasked to respond. U.S. Naval capabilities are patent, but less known is that FBI and CBP have developed special maritime response capabilities. Also, the USCG has approximately 13 Maritime Safety and Security Teams (MSST) of about 100 members who can perform rapid response missions

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[206] Frittelli, "Terminal Operators," 2006, 5-6.

[207] Bone.

to vital ports. MSST's can be deployed to meet emerging threats and have unique anti-terrorism capabilities. The USCG is upgrading MSST's into enhanced teams (E-MSST) and Maritime Security Response Teams (MSRT). The USCG hopes to expand specialized force capabilities to provide more availability and coastal coverage.[208]

Timely response often hinges on effective coordination and communication. Hurricane Katrina in 2005 illustrated that interagency channels need to be improved between federal entities, and also between federal, state, and local agencies. This holds true for maritime security, as will be discussed below. At the local level, the USCG along with the Transportation Security Administration (TSA) has recently piloted a PortSTEP program to train maritime transportation organizations and communities. The exercises build communication and coordination relationships between all agencies that will play a role in the event of a maritime transportation incident. Seven exercises occurred in 2005 with 17 more scheduled for 2006. Area Maritime Security Committees will be responsible for managing the PortSTEP network at the local level.[209]

B.   EVALUATION OF U.S. MARITIME SECURITY POLICIES

Has the NSMS succeeded in uniting a collection of various maritime security programs into a coherent, layered defense? For two reasons, the approach to U.S. maritime security has been piecemeal. Primarily, maritime security has not been given the highest national priority. The NSMS was not signed until over four years after 9/11. Secondarily, assignment of maritime security responsibilities has been ambiguous. The ambiguity has allowed "too many to mention" agencies with varying roles to solicit funding from the federal and state Homeland Security coffers, often with little regard for other programs.

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[208] Michael Bruno, "Coast Guard to Grow Own Special Forces," *Aerospace Daily and Defense Report*, *Aviation Now*, 15 March 2006; "Secure Seas, Open Ports."

[209] Bone.

The funding of maritime security is still a problematic issue. The below evaluation analyzes the maritime security situation and offers recommendations for improvement.

1.   Maritime Security Funding

The prime source of federal port funding is the Port Security Grant (PSG) Program. The PSG aims to create a sustainable, risk-based effort for the protection of maritime critical infrastructure from terrorism, especially large explosions and non-conventional threats that would cause large-scale disruption to commerce or catastrophic damage. In 2005 the review process, consisting of USCG, Maritime Administration, and state or local government teams, selected 66 ports for funding in a number of security areas, but with strong emphasis on preventing Improvised Explosive Devices (IED).[210]

The PSG Program distributed $141 million ($516 million since 2002) in 2005 based on risks and strategic importance. America's 129 largest ports were evaluated for risk based on three elements: consequence, vulnerability, and threat. Though the matrix was recently reformed, the DHS Inspector General reported that 20 projects which did not meet the strategic security priorities were still funded. The IG report stated that additional adjustments to the grant formula may be needed, and that some higher-priority projects were not funded because there was not enough money. Other transactions in the 2005 grant distribution scheme indicate that port security funding suffers from the same political and bureaucratic pressures as many other budget processes.[211]

$516 million for port security grants since 2002 appears a sizable amount, but airport operators were granted $1.5 billion in 2002 to 2003 to reinforce security measures. The DHS has proposed eliminating all grant programs in favor of a risk-based Targeted Infrastructure Protection program. The DHS plan prescribes that state and local governments compete for $600 million which

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[210] "FY 2005 Port Security Grant (PSG) Program," (Washington, DC: DHS Office of the Secretary, Office of State and Local Government Coordination and Preparedness, 2005).

[211] Caitlin Harrington, "Port Security Grants Miss the Mark Despite Revised DHS Formulas," *CQ Homeland Security*, 7 March 2006.

would be split between numerous infrastructures. After the round of publicity caused by the Dubai Ports World (DPW) acquisition attempt, a number of congressional bills were introduced to funnel money directly to towards port security. The Greenlane Maritime Cargo Security Act proposed $835 million for port maritime security, including $400 million for the grant program.[212]

Whether new port security bills will maintain enough traction to move forward is yet to be determined, but the maritime security track record has been criticized in the past for underfunding. Since 9/11, the USCG primary missions have transitioned from SAR and Drug Interdiction, to SAR and Homeland Security. The increased operational tempo of homeland security missions has shortened the life expectancy of many USCG assets. For example, port and coastline security which consumed eight percent of the USCG budget in FY2001 accounted for 29 percent in FY2005. GAO reviews have concluded that the USCG request for new or upgraded assets is clearly legitimate, but the USCG's Deepwater modernization program has not been fully funded and other budget areas, like SAR are being reduced.[213]

The government need not bear the entire cost for security measures. With regard to containers, four companies - Hutchison Port Holdings of Hong Kong, PSA Singapore terminals, Dubai Ports World, and APM Terminals of Denmark - handle approximately eighty percent of U.S. bound containers. Hutchison has a strong record for advocating container security programs. Besides political pressure, these companies could fund screening and inspection measures by implementing user fees. Similar to the manner in which additional passenger fees are funding airline security measures, container fees could pay for port terminal enhancements.[214]

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[212] Chris Strohm, "Maritime Security Measure Gathers Bipartisan Support," *Daily Briefing, GovExec.com*, 7 March 2006; Michael Dobbs, "US Maritime Transportation Security," *Jane's Homeland Security and Resilience Monitor*, 1 July 2004.

[213] Ronald O'Rourke, "Homeland Security: Coast Guard Background Issues for Congress," *CRS Report for Congress* (9 January 2006); Audrey Hudson, "Lawmakers Criticize Coast Guard Funding," *Washington Times*, 3 March 2006.

[214] Stephen Flynn, "A Port in the Storm Over Dubai," *Council on Foreign Relations*, 28 February 2006.

2. Maritime Security Jurisdiction

It is understandable why initial attempts to formulate a coherent maritime security strategy would lean towards over-assigning responsibilities, or assigning multiple agencies with the same areas of responsibility. The priority after 9/11 was to plug any and all gaps. The establishment of the DHS, NORTHCOM, Office of the Director of National Intelligence, and other entities was part of national effort to construct a protection system for the United States. By compounding multiple departments into a "concerted national effort," the government has actually increased its options for response. The absence of clear lanes of responsibility allows the President to determine which threats can be met by law enforcement and which by military. Multiple options and redundant security layers can be an advantage; uncertain lines of authority can be a detriment.[215]

Outside U.S. waters, the same concerns that hamper the nations of Southeast Asia from clearly defining responsibilities and procedures apply to U.S. authorities. There are five recognized principles which generally allow a nation to assert extraterritorial jurisdiction. Terrorism aimed directly at the United States meets the threshold for the protective principle, in which the offence threatens the vital interests of the prosecuting state. Piracy on the other hand is less clear. If the act of piracy is condemned by a convention or treaty which the United States and the state in question are both party to, then the universality principle may apply. As example, if a piracy takes place in Mexican waters, the United States does not have jurisdiction and DOS would coordinate with Mexico if the FBI wanted to participate in the investigation. But if the act was committed against an American yacht, the FBI may have certain extraterritorial rights. If the act was declared to be terror against an American, the FBI would have clear rights of investigation (anywhere).[216]

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[215] Thomas Goss, "'Who's in Charge?' New Challenges in Homeland Defense and Homeland Security," *Homeland Security Affairs* II, no. 1 (2006).

[216] Chris Swecker, (Statement of Assistant Director, CID, FBI, Washington, DC: US House of Representatives Committee on Government Reform, Subcommittee on National Security, Emerging Threats and International Relations, 13 December 2005).

Who's in charge of maritime security within U.S. waters? Confusion over U.S. maritime jurisdiction is rooted in the 2002 MTSA and 2005 NSMS. In attempt to deploy layered security, the NSMS states that the "Department of Homeland Security, the Department of Defense, and the Department of Justice, as well as the department of State when diplomatic activities are required, *will lead the United States' efforts* to integrate and align all … [U.S.] maritime security programs and initiatives…" The NSMS then proceeds to address transnational threats by directing the DOD and DHS to "develop a mutually agreed process for ensuring rapid, effective support to each other."[217] Even without the threat of terrorism, distributing responsibilities over the complexity and scope of the maritime domain presents a formidable challenge. The establishment of NORTHCOM has geographically divided responsibilities for the DOD. But DOD and DHS responsibilities with regard to the United States area of responsibility overlap. DOD has attempted to clarify authority and responsibility issues with DHS by developing *Strategy for Homeland Defense and Defense Support to Civil Authorities* and the *DOD Homeland Security Joint Operating Concept*. But until DHS is resourced for every counter-terrorism mission, such as airborne security, the responsibility overlap must remain.[218]

Other jurisdictions are even less clear. A recent DOJ Office of Inspector General (OIG) report warned that the FBI and USCG have overlapping jurisdiction with regard to responding to terrorist acts within the littorals. The USCG MSST's and the FBI's 14 Enhanced Maritime Special Mission Teams are both capable of responding to a threat. Ordinarily, redundancy in a security system is viewed as a plus. The OIG report concludes that jurisdictional issues have not been resolved and could be a problem during a terrorist incident. Earlier this year, an FBI director testified before Congress that "the FBI is responsible for coordinating the activities of other members of the law enforcement community to detect, prevent, and disrupt terrorist attacks. In addition, the FBI is lead MOTR agency for intelligence collection in the United

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[217] My emphasis in first quote. *National Strategy for Maritime Security*, 20.

[218] Goss.

States…responsible …to integrate all U.S. maritime security programs and initiatives into a comprehensive, cohesive national effort."[219] Far better to have more than one agency leading the response effort than none at all, but the issue must be resolved.

Undefined authority also complicated the worker identification program (see TWIC, section A.7 above). Originally scheduled for 2004, ID card roll-out is not expected until 2007. Confusion over local versus federal requirements, cost-sharing and funding, and alternatives has delayed TSA's implementation plan. The miscellaneous incoherent nature of the cargo security initiatives can also be partly attributed to unclear delegation of responsibilities. Though plans like CSI, C-TPAT, TWIC, etc. are all effective on some level in their own right, a unified, synergistic plan is not in place.[220]

3. Maritime Port Security

In February 2006, Dubai Ports World (DPW) purchased a British-owned company. The deal placed control of facilities in five U.S. ports in the hands of the United Arab Emirates (UAE) government. The sale provoked outrage from pundits and politicians alike because two 9/11 hijackers were from the UAE, a country formerly used by Al Qaeda as a financial hub. Foreign control of the ports was later circumvented when the UAE's Vice President transferred ownership to a U.S. entity. Whether right or wrong, the DPW incident served to highlight port security, or port insecurity as some contended, in America.

Does the operation of U.S. port terminals by foreign governments or businesses a present a threat? Considering that in the seventeen largest U.S. container ports, 66 percent of the terminals are operated by foreign companies, the United States may be missing the big picture. Most terminals are managed by foreign companies because almost all shipping lines are owned by foreign companies.[221] In actuality, by effectively thwarting the DPW deal the United

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[219] Swecker.

[220] Jon Haveman, "U.S. Port Security Policy after 9/11: Overview and Evaluation," *Journal of Homeland Security and Emergency Management* 2, no. 4 (2005).

[221] Frittelli, "Terminal Operators," 2006, 3.

States may have missed an opportunity. DPW offered to provide additional guarantees to protect the terminals in question. If the U.S. government forced DPW to agree to install scanning and radiation equipment not only at the five American terminals, but also at its 41 terminals in the Middle East, Asia, North and South America, then security could have been improved. This would not have been an unrealistic request. In Hong Kong for example, Hutchison Port Holding's terminals electronically inspect 100 percent of incoming containers and even record the digital images into a file for use in investigation, when warranted.[222]

U.S. seaports and surrounding areas have been accustomed to crime. In 2000, cargo theft from around port areas was estimated to be about $10 billion. Smugglers have been known to employ a strategy of employing trusted exporters to transport items such as narcotics into the country. Drug smugglers normally look for long-term arrangements, allowing the USCG and CBP to look for specific patterns. Terrorists on the other hand may likely use a particular method to attack only once. Given the tremendous amount of cargo arriving at America's seaports, searching for a WMD is like searching for a needle in a haystack regardless of terminal or port ownership nationality.[223]

The potential threat posed by foreign or domestic ownership and operation of U.S. port facilities really depends upon the allegiance of the hired workers. Theoretically, a foreign company may gain knowledge of day-to-day port operations by owning a terminal, but terrorist groups could acquire the same information by working at a port, coaxing a laborer to talk, or researching. The bottom line is that U.S. ports already depend on foreign entities for security. Three major programs, CSI, C-TPAT, and ISPS Codes, require foreign companies and authorities to implement and enforce security standards.[224]

Physical security of ports is also a challenge. Perimeter security at ports varies; expectedly, fences, surveillance systems, and security guards are not of

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[222] Flynn, "A Port in the Storm."

[223] Frittelli, "Port and Maritime Security," 9-10.

the highest "bank-like" quality.[225]   Even if perimeter security was tight, ports by nature have numerous avenues of access to allow on- and off-loading. If access programs like TWIC are forced to issue so many cards that the identification system itself becomes compromised, then port security will too be compromised.

4.   Ship and Cargo Security

With much of the effort aimed abroad, maritime security measures for American cargo have lagged.   Under CSI, while 100 percent of containers are screened by reviewing shipment data, only *five to six percent* of containers are inspected using x-ray or gamma ray technology, or by physically devanning (unloading the container).[226]   In November 2005, the CBP Commissioner stated that screeners were inspecting 100 percent of the right five percent of containers. In theory, security programs such as CSI's 24-hour advance manifest rule and C-TPAT provide supply chain safeguards, allowing CBP to devote its resources to the high-risk shipments.   However, C-TPAT participation is voluntary and membership is primarily comprised of companies that operate in the United States.   Considering that decisions as to which containers are inspected under CSI are partially informed by C-TPAT information, the claim of near perfect intelligence seems suspect.   Terrorists can easily discover which "trusted" companies receive no container inspections and exploit those companies.   A WMD could be placed in a containerized shipment in a number of ways, prior to or after the port inspection process.[227]

Even if terrorists are not resourceful enough to exploit lower risk containers and cargo, a recent study found that a "disturbingly low" number, 37 percent, of high-risk containers were being inspected abroad. More importantly, the effectiveness of the ATS in selecting high risk containers can not be verified. "The CBP has not yet put key controls in place to provide reasonable assurance that ATS is effective at targeting oceangoing containers with the highest risk of

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[224] Frittelli, "Terminal Operators," 12-16.

[225] "Fixing the Holes in America's Porous Ports," *New York Times*, 10 March 2006.

[226] "Screening Fact Sheet," Coalition for Secure Ports, <www.secureports.org/>.

[227] Flynn, "Port Security is Still a House of Cards."

containing smuggled weapons of mass destruction." In addition to ATS software and integrated system shortfalls, the CBP has not been able to persuade longshoremen at some West coast ports to stage containers in a manner which accommodates inspection.[228]

Even when cargo initiatives are in place, security measures may not be completely sound. Reportedly, a recent DHS study discovered that cargo containers can be opened secretly while enroute to the United States. Other weak links in the system are the chain of custody and accompanying documentation. Truck drivers in some countries were permitted to take containers home over night. Merchant crews lacked credentials. Private companies as well as a number of foreign governments were found to be complicit in the neglecting of security procedures.[229] But this should not be a surprise or an indictment. In America, four federally contracted employees embezzled millions of dollars designated to a border surveillance system.[230] In any system involving human interaction, no matter how well intentioned, there will exist opportunities for corruption or negligence.

By the same token, technical measures like in-port radiation detection and X-ray type screening devices are not foolproof. Nuclear bombs are well shielded and dirty bombs can be encased in lead. In order to be detected, the weapon must have a large signature. If sensitivity of screening devices is increased, then the amount of false positives could theoretically overwhelm port operations. The same type of slowdown would occur if U.S. customs officials were to inspect a statistically significant number of containers entering the nation. Security by its nature is inconvenient; currently there is no feasible 100 percent solution to the cargo security problem.[231]

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[228] "Cargo Container Inspections: Preliminary Observations on the Status of Efforts to Improve the Automated Targeting System," (Washington, DC: Government Accounting Office, 30 March 2006); Toby Eckert, "U.S. Has Big Gaps in Cargo Container Security, Senate Study Finds," *Sign on San Diego*, 30 March 2006.

[229] Ted Bridis, "Cargo at Risk on Way to U.S., Study Finds," *Monterey County Herald,* 12 March 2006.

[230] Alice Lipowicz, "Agencies to Intensify Oversight of SBI," *GCN*, 27 February 2006.

[231] Michael Hill, "Thinking Inside the Box," *Baltimore Sun*, 26 March 2006.

Bulk carriers and tankers are not subject to the 24-hour rule. Tankers, the LNG type oft cited as possessing the most destructive potential, are suspected targets due to the explosive characteristics of the cargo. In a worse case scenario, one study estimated that as many as 8,000 deaths could result from an LNG terminal explosion in Providence, RI. If not perfectly executed, most terrorist attempts to explode an LNG tanker would result in fire, causing less but still significant damage than worst case. Currently, only four onshore LNG terminals exist in the United States but with the projected increase of import, there are 40 proposed LNG terminals. If proximity to market is used a determining factor, then ports near major population centers may be selected.[232]

In order to be effective against the threat of transnational terrorism, the bulk of ship and cargo security policies must migrate to overseas ports, foreign ships, and up supply chains. CSI and C-TPAT must continue to expand in processing capacity, geographic coverage, and participation. Equivalent security programs must be developed for bulk carriers. Besides expanding, partnership programs like C-TPAT must not allow importers to lessen U.S. inspection and screening requirements without guaranteeing improved security. Robust validation processes must coincide with any incentive program.[233] Acknowledging that U.S.-led global initiatives such as CSI are costly for foreign ports and ship owners to implement, economic incentives must be included, as is done with C-TPAT. The United States must find ways to build overseas presence in order to audit programs, without provoking hostility. Even the USCG International Port Security Program has engendered ill will at times, prompting some reticence in the international community with regard to maritime security.[234]

At the same time, the United States must keep insulating homeland infrastructure. One proposed solution to the threat of WMD-laden cargo and

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[232] Kaplan.

[233] "Cargo Security: Partnership Program Grants Importers Reduced Scrutiny with Limited Assurance of Improved Security," (Washington, DC: Government Accounting Office, March 2005).

[234] Dobbs.

ship-as-weapon scenarios is to develop a system of off-shore floating ports. The port system would allow inspection of cargo before it reaches America's shores. Some percentage of cargo from foreign ships could be off-loaded, scanned, and placed on barges destined for nearby ports. Certain foreign vessels would never reach America's shores. Though the concept sounds impractical, offshore ports are constructible and would add another layer to the defense-in-depth concept.[235] There may be more practical ways to decentralize the critical maritime infrastructure, such as expanding smaller ports or distributing cargo type more evenly. What is impractical is sanitizing every governmental, commercial, and private vessel on America's waterways. Without perfect intelligence, the threat of maritime terrorism will always be bona fide.

5. Maritime Security Awareness

Achieving perfect MDA may be a lofty goal, but there are two aspects to the problem. The collection of information necessary to provide an "effective understanding of *anything* associated with the global maritime domain" is in itself a daunting task.[236] Be that as it may, it was not intelligence collection but rather the faulty process of information analysis and intelligence sharing that was determined to be a primary cause for 9/11. Though all details of MDA ownership and responsibility have not been firmly established, the "intelligence failure" message has been relayed to all interested parties. At the national and regional levels, the processing and disseminating of information is taking place. At the local level, interagency operational centers, representing DHS, DOD, and DOJ agencies, have been established at a number of ports and operate 24 hours per day. The JHOC in Hampton Roads, VA, is the latest to open. The center, lauded as a model by the USCG, houses the latest surveillance and telecommunications technology.[237] Area Maritime Security Committees,

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[235] Michael Hillyard, "The Atlantis Garrison: A Comprehensive, Cost Effective Cargo and Port Security Strategy," *Strategic Insights* IV, no. 4 (April 2005).

[236] My emphasis. *National Plan to Achieve Maritime Domain Awareness*, October 2005.

[237] Tim McGlone, "Security Shored Up at Local Ports with 24-hour Command Center," *Hampton Roads News- Virginian Pilot*, 25 March 2006.

prescribed by the MTSA, have facilitated information sharing between federal and nonfederal stakeholders by establishing communications structures and information sharing procedures.[238]

C. CONCLUSIONS

As a result of 9/11, the United States has significantly ameliorated maritime security. Dramatic progress has been made on a number of technical, procedural, and cooperative fronts. The GWOT defense-in-depth strategy has forced key security measures to the far reaches of the globe because if a WMD is discovered upon arrival at a U.S. port, it may be too late. The maritime arena has also benefited from promulgation of international policy, such as ISPS Code. Though differences of opinion exist as to the prevention, response, and prosecution of maritime crime, there is international agreement that maritime terror must not be tolerated. This consensus, along with U.S. urging, has propelled tremendous activity in the maritime security domain.

Substantial progress has been made but it is fair to say that due to the lower priority given to domestic maritime security, that implementation of the national strategy is not finished. Congress has drafted numerous critical infrastructure protection bills, most recently the National Defense Critical Infrastructure Protection Act of 2006 which deals with issues of ownership, management, and operation of critical infrastructure. But the "big picture" has not been honestly analyzed. The maritime domain is the backbone of the global economy. Rationally, a risk-based decision matrix which considers strategic importance would place maritime security at or near the top. Unfortunately, the 9/11 Commission graded homeland security funding as an "F" on the December 2005 report card because security funds have yet to be allocated on a risk-based scale. Setting aside risk criteria, maritime security programs have still been underfunded given the security mandates set forth by MTSA, NSMS, and subordinate directives. Optimistically, the recent discussion over port terminal

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[238] "Maritime Security: New Structures Have Improved Information Sharing, but Security Clearance Processing Requires Further Attention," (Washington, DC: Government Accounting Office, April 2005).

ownership will concentrate attention on maritime threats and vulnerabilities long enough for security issues to be properly ranked and funded by risk and importance.

In addition to the direct cost of security programs, U.S. security policies must take into account economic impact. The just-in-time nature of shipping makes the balance between security and commerce a precarious one, but it is a balance which can be tilted to America's advantage. The important role that the maritime domain plays in the economies of foreign countries has served as the catalyst for conformance and participation in port, cargo, and shipping initiatives. The United States must continue to leverage its economic strength by aligning maritime security measures such as CSI with the best economic interests of trading partners.

Incentivizing security performance with economic reward, such as "fast tracking" cargo, will compel policy compliance and widen inclusiveness. CBP estimates that by the end of 2006, between 80 and 90 percent of containers entering the United States will have departed from CSI ports. The next step is to develop a failsafe CSI screening and inspection process. Obvious weak points in the container system, such as packing integrity, custody chain from product source to dispatch port, terminal access procedures, documentation, etc. must be solidified. Control and credentialing of stevedores and ship crews must be tightened. Security codes must not only be emplaced, but also rigidly enforced. Securing the maritime commerce system will involve much more than governmental resources.

From the beginning of the GWOT, the United States has asserted that commercial entities must play a role in security. C-TPAT provides a sound framework for commercial security initiatives because supply lines and working relationships are already defined. Rigor must be instilled into commercial programs by making non-participation and non-compliance more costly than conformance. The brunt of commercial program responsibilities must be placed on foreign companies. As aforementioned, a great opportunity was missed when

the U.S. dodged the DPW port deal instead of convincing DPW to install state-of-the-art security measures at the terminals, including worldwide locations. "At the end of the day, America's port security is not about who is operating on our waterfront." The main issue is self-policing by commercial companies with limited oversight or enforcement capacity by the U.S. authorities.[239]

On the topic of authorities, the United States must resolve interagency jurisdictional issues. The maritime threat might be ambiguous, but the security plan must be clear. To be fair, the NSMS is newly published. Operating norms and formalized responsibilities are still being established between DHS, DOD, and DOJ agencies, as well as other entities. Interoperability, communications, and procedures are being exercised. The capability and capacity of federal, state, and local maritime security forces are expanding. The highest administrative priority must now be to delouse the chains of command so that resources can be applied effectively to prevention, response, and consequence management endeavors.

Can and will U.S. maritime security ever expand to provide complete coverage? The vastness and complexity of the maritime domain provide plenty reason for skepticism. Achieving perfect MDA for instance, seems improbable regardless of the amount of human intelligence and technical initiatives thrown at the problem. Security emphasis has been placed squarely on the commercial sector but what about the about private craft at a public marina? Analogous to a vehicle-borne IED (car bomb), a weapon can be placed into a small, private boat and rammed into a ship with little or no warning. The small boat attack is the exact scenario that Al Qaeda performed twice off of Yemen; means of stopping a small boat attack are very limited.

Even if all concerned agencies were given all requested resources and implemented all desired policies, the ingenuity of the terrorist threat remains a wild card. Most of the maritime security measures discussed in this chapter have been external to the ships. Akin to the airline industry, ship's crewmembers and

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[239] Stephen Flynn, "The DP Controversy and Ongoing Vulnerability of U.S. Seaports," *Council on Foreign Relations*, 2 March 2006.

passengers may be the last line of defense against a terrorist attack. During piracy, crewmembers tend to placate the attackers not wanting to endanger their own lives. This approach may backfire if the perpetrators are actually terrorists seeking to hijack a supertanker and crash it into a port, a lesson learned painfully on 9/11.

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V. IMPLICATIONS AND RECOMMENDATIONS FOR U.S. MARITIME SECURITY STRATEGY

A. IMPLICATIONS FOR MARITIME SECURITY STRATEGY

This thesis has argued that piracy tactics and trends represent a legitimate concern to the United States which must be addressed when developing maritime counter-terrorism policy. The study of sea piracy tactics and the maritime terror threat, primarily in Southeast Asia, has illuminated a number of issues which are relevant to U.S. maritime security. Likewise, the security polices emplaced to prevent piracy and maritime terrorism in Southeast Asia have implications for U.S. maritime security policy.

1. Long-term Implications

The maritime security strategy in Southeast Asia has been effective in increasing awareness of piracy and reducing total numbers of attacks. But many of the maritime security policies, such as increased patrolling, are aimed at tactical prevention of sea piracy and other forms of sea crime or maritime terror. Though maritime patrols can reduce criminal incidents in the short-term, it is sufficient to say that in addition to tactical maritime security policies, Southeast Asia and the United States need long-term strategic solutions. The global war on terror is now being called the "long war." A long war has extremely significant implications for the maritime security strategy. Besides the expectation of a long war, the ubiquitous nature of piracy and maritime terror implies that security forces must change into a more omnipresent force. As discussed in Chapter III, a transformation of naval forces is beginning in Southeast Asia as nations attempt to increase capability. Examples of Southeast Asian transformation are improved surveillance and communications systems, information sharing centers, and force training and mariner awareness programs. In addition to building capacity in Southeast Asia, the United States has recognized that a transformation of its own naval forces into a more agile and versatile fleet will be needed. The goal of long-term transformation must be to permanently influence the maritime domain, not merely respond quickly to a maritime incident.

Reshaping security forces solves only one part of the puzzle. Another long-term strategy which will benefit maritime security is that of resiliency, making the maritime infrastructure less susceptible to severe consequences in the event of an attack. Resiliency can be achieved by dispersing and diversifying shipping, using alternative routes and product sources, and by employing a variety of shipping methods. For example, major energy consumers like China and Japan should find ways to cushion their economies if the flow of traffic through Southeast Asian choke points is interrupted. Besides building strategic oil reserves, projects such as the Thailand's "Strategic Energy Land Bridge," scheduled for completion in 2010, will provide an alternative route for Middle Eastern oil to reach East Asia. The pipeline will cut more than 600 miles off the shipping distance and allow shippers to bypass the Malacca Straits.[240] Regardless of sector - energy, food, etc, - building alternative sources and strategic reserves, along with diversification of shipping routes and methods, should be an integral part to long-term maritime security strategy.

Another long-term policy implication for the United States is that intelligence partnerships will play a key role in preventing maritime terror. In fact, the U.S. State Department's Overseas Security Advisory Council (OSAC) played a part in warning Indonesia about a heightened risk of attack on its hotels prior to Jakarta's J. W. Marriott bombing in 2003. The intensified security at the hotel panicked the terrorists, causing the attackers to detonate the car-bomb 100 feet further away from the hotel than planned.[241] Besides government-to-government sharing of intelligence, commercial sector-to-government information sharing must continue to upswing. Since the commercial sector owns the majority of large sea-going vessels and is most likely to be exploited by maritime terrorists, partnerships are essential if effective databases and warning systems are to be developed. Technology will undoubtedly be integral to information collection,

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[240] Korin, Anne and Luft, Gal, "Terrorism Goes to Sea," Council on Foreign Relations - Foreign Affairs, November/December 2004.

[241] Marcy Mason, "OSAC: A Partnership," *McGraw-Hill Homeland Security* (September/October 2005).

both governmental and commercial, but the United States must be cautious of over-relying on technical means of collection since much of the maritime industry is not modernized or standardized.

Along the same lines as intelligence sharing, a counter maritime terrorism strategy must develop and employ a system of indications and warnings. Southeast Asia's environment provides a rich resource for the study of maritime crime and terror. Suspicious events such as pirates steering the *Dewi Madrim* in 2003 or reports of suspected terrorists taking diving instruction must be analyzed. Terrorism, including transnational terrorism, has a number of processes which serve as indicators. Steps in a typical maritime operation may include team assembly, operative infiltration, target selection, reconnaissance, recruitment of a subject matter expert, provision of funds, technical training, purchase of special items, rehearsal, final preparations, reconnaissance, communications, and execution. Each step represents a terrorist vulnerability to actionable intelligence. The challenge will be developing intelligence collection and analysis schemes to identify these steps.

Nearly five years has passed since 9/11, yet Southeast Asia and the United States are still struggling to resolve sovereignty and jurisdictional problems, as well as legal issues in the international maritime domain. The fact that a great deal of dialogue has occurred is a promising first step in the long-term process of recognizing and eventually resolving issues of sovereignty and jurisdiction. Even in the face of legal incongruity, the enhancement of maritime security policies has to large extent conflated anti-piracy and counter-terrorism measures under one tactical blanket. As demonstrated in Southeast Asia, many of the tactics used by pirates may be readily adaptable to maritime terror and thus, many of the counters, such as increased patrolling, can prevent either act. The long-term strategic implication, as stated in the U.S. National Strategy for Maritime Security, is that a comprehensive maritime security policy which will secure the seas from all threats can be developed on some levels. For example, counter-terrorism policies can be linked with other security programs such as counter-narcotics and human trafficking prevention programs.

2. Near-term Implications

In the near-term, the upward trend in violence and sophistication of maritime attacks hold relevant implications for U.S. maritime security policy. As is happening in Southeast Asia and in the United States, the training and tactics of maritime security forces are becoming more complex. In attempt to combat the unknown terrorist threat, military and law enforcement agencies are being compelled to cooperate in order to bring more capabilities and alternatives to bear. Agencies are also being tasked to broaden areas of responsibility. Until steady-state programs and operational postures are clarified and instilled, security forces must remain flexible.

Southeast Asian piracy incidents illustrate that ships are more vulnerable to attack when anchored or moored in port, or while slowed to transit congested traffic areas and chokepoints. This implication has caused a large proportion of the maritime security effort to be focused on channel and port security. Long-term policies are being developed to implement more persistent protection measures such as traffic de-confliction schemes, surveillance and vessel monitoring systems, consequence management, and communications plans. Until robust security plans are established and integrated maritime domain awareness is achieved, harbor and strait patrols, quick response procedures, and vigilance will play a large part in port, harbor, and channel security.

Even with robust security procedures entrenched, terrorists may not be deterred. The last line of defense may be the responsibility of the crewmembers. In Southeast Asia, crewmembers have not played a significant role in preventing maritime crime. The lesson for the United States should parallel the airline industry's example - protecting crews and enabling crews to protect themselves also prevents attacks. Technological initiatives are being applied to ship protection, but for the most part, crewmembers remain an ineffective deterrent to piracy or maritime terror.[242]

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[242] See in Appendix A - Shiploc, Secure Ship, and Ship Security Alert System.

B.   RECOMMENDATIONS FOR U.S. MARITIME SECURITY POLICY

The National Strategy for Maritime Security outlines an ideal plan to secure the world's seas and protect America's interests from any type of maritime crime. A more realistic appraisal of the strategy reveals that the primary objective of U.S. maritime security policy is to prevent a catastrophic terrorist event caused by a WMD reaching America's shores. In itself, this is not a flawed strategy because many counter-terrorism measures generate the by-product of maritime security in general. In the past the United States has never had to focus on maritime crime because the impact on U.S. interests was relatively insignificant.   Prior to 9/11, U.S. attempts to combat piracy were lacking. The USCG participated in regional seminars and workshops and contributed to the writing of at-sea piracy circulars for the International Maritime Organization. But as discussed in Chapter II, most piracy does not occur at-sea but rather in foreign ports, which was true for seventy percent of the incidents in the years immediately prior to 9/11.[243] Post 9/11, U.S. and foreign port security has come to the forefront of the maritime security agenda. Overseas counter-terrorism initiatives such as the ISPS Code, CSI, and Singapore's vessel tracking system can definitely benefit overall maritime security, including the prevention of maritime piracy and crime.   So although the United States prescribes a comprehensive global effort to protect *all* the world's maritime trade from *all* threats and ensure security across the entire spectrum of the maritime domain, the true aim of U.S. policy should remain exactly as stated; *Preeminent among our national security priorities is to take all necessary steps to prevent WMD from entering the country and to avert an attack on the homeland*.[244]

With the prime directive of preventing a WMD attack at the forefront, the following recommendations are offered to improve U.S. maritime security:

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[243] Dillon, Dana, "Piracy in Asia: A growing Barrier to Maritime Trade," Heritage Foundation Backgrounder no. 1379, 22 June 2000.

[244] *National Strategy for Maritime Security*, 7.

1. Foreign Ports and Waters - The Outer Layers of Defense

Capacity building has a much more positive connotation than foreign aid or assistance. The United States should welcome the new label and leverage the invitation to bolster security across the globe. Whether through bilateral or multilateral efforts, the United States should trade capacity building programs for improvement in security frameworks. As an example, Southeast Asian capacity building efforts such as those in Indonesia are encouraging, but the region represents only a small fraction of the totality of maritime activity. On a global scale, the United States should offer America's ports (easier access) as the incentive to impose foreign port security initiatives. As the largest importer in the world by far, America has the leverage to force change. To some extent, this is already being done with regard to containers via CSI, but similar measures must be imposed across the entire range of imports. It makes little sense to inspect one hundred percent of U.S.-bound containers for nuclear bombs when tankers, bulk carriers, and other private vessels receive little to no scrutiny.[245] As initiatives are instituted, technical loopholes and gaps must be plugged. All projections show maritime commerce as growing in scope and importance. The capacity exists for the system itself to pay for the cost of increased security.

Regardless of the amount of physical and procedural security mechanisms in place, there will always exist some level of vulnerability. The United States is counting on intelligence to bridge the gaps in security. This thesis will not belabor the post 9/11 critique of the intelligence community, except to stress that the achievement of maritime domain awareness unquestionably relies on interagency cooperation, along with unfettered flow of information from all private and foreign sources to the intelligence community.

2. International Waters - The Mid Layers of Defense

In January 2006, the U.S. Chief of Naval Operations described a maritime domain which is "getting smaller every day." Referring to the increasing

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[245] Alan Kochems and James Carafano, "One Hundred Percent Cargo Screening and Cargo Seals: Wasteful and Unproductive Proposals," *Heritage Foundation, WebMemo*, no. 1064 (May 2006).

importance of the maritime domain and its security, the CNO envisioned a 1,000-ship Navy as part of a "world fleet of like-minded navies and coast guards teaming up in a sort of global neighborhood watch."[246] Transformation has been the military "buzzword" since 9/11 and the Navy must transform if it is serious about safeguarding the United States from maritime terror. The U.S. Navy must shift from a mindset of pure power projection to a mindset of balanced capability and persistent presence.

At the seams of international and territorial waters, the Navy should use the recently established Naval Expeditionary Combat Command to harness security skill sets and expand security operations not only into foreign waters, but also onto America's own shores. There are already widely accepted mechanisms in place, such as Search and Rescue training and exercises, which will allow increased U.S. Navy and Coast Guard participation overseas. Under any umbrella, increased participation yields enhanced interoperability, communication, trust and cooperation - all key elements to a global maritime security structure. PACOM's exercises (Cobra Gold, SEACAT, MPAT) provide prime examples.

Since no number of ships can cover the full expanse of the globe, technological and other security initiatives must be continued. Progress is being made with tracking and warning systems for large international ships. The United States should give economic incentives or offer easier access to all U.S.-bound foreign ships equipped with cooperative tracking systems, and also meeting other security criteria such as heightened credentialing standards. With the proper mix of presence and technology, the world's maritime domain truly can be made "smaller."

3.   American Ports and Waters - The Inner Layers of Defense

The most vital cog in the maritime security system is the defense of America's homeland. Because of the lucrative and accessible target set afforded by the build up of population and infrastructure on the coastline, the threat of

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[246] "CNO Speaks at SNA Symposium," *Chief of Naval Operations Public Affairs Release*, 19 January 2006.

maritime terror must not be overlooked. The maritime transportation system is not functionally divisible. Cargo security measures impact vessel security measures which in turn affect port security, and so forth. Therefore, the United States must overcome any bureaucratic barriers and resolve all jurisdictional disputes in order to effectively protect America's ports and waterways. Even traditional restraints on the U.S. Navy such as the Posse Comitatus Act must be re-evaluated. If Posse Comitatus was reformed for specific circumstances only, such as "at-sea" security, the broadening of capacity and capability would provide the government with more security options. Corresponding efforts to enable maritime security and threat response options for DHS, DOJ, and other DOD assets should be considered.

At the same time, a tightening of command chains must occur. Though functional maritime areas overlap, lines of authority should not. Northcom has taken steps to clarify the DOD's role in civil support, but events such as Hurricane Katrina demonstrated that confusion still exists. Even after official lines of authority are defined, the maritime security forces face the enormous challenge of bringing private sector entities into compliance. Initiatives like C-TPAT which align economic and security interests fall short of ensuring compliance. Even when technical cargo security programs reach full capacity, there will exist human interface vulnerabilities such as dock workers, crewmembers, and other personnel. Full compliance on all levels will be required to safeguard the complexities of U.S. port systems and related maritime infrastructure.

4.   Ship Defense - The Last Line of Defense

Concerning piracy, attacks are usually committed by armed perpetrators. In the past, ships have defended with lights, alarms, signal flares, and fire hoses. Ship owners are primarily concerned with the safety of the cargo and care less about pilfering and small-scale robbery, the most common type of piracy, than hijacking or kidnap-for-ransom. Overall, crews have been a relatively ineffective deterrent to piracy. If ship owners could protect crewmembers, maritime crime and terrorism could be foiled. One recommendation is to hold ship owners

financially liable for *all* property loss, injury and death resulting from maritime crime in order to boost the incentive to protect crewmembers.

Alternatively, arming crewmembers sounds like a more expedient method to thwart off would-be pirates or even terrorists, but the process would not be that simple. Besides the legal impediments, there are practical barriers. Most crews are hired from third world countries. In addition to background checks, the crewmembers would require weapons training. The current condition of the hiring and credentialing system certainly would not allow for such an initiative. But deploying trained security teams onboard high value ships transiting high risk waters could be effective. The security team concept may also be employed on high-risk vessels, such as LNG tankers or ammonium nitrate carriers, entering U.S. ports.[247]

C. CONCLUSION

The maritime domain presents an extremely formidable security challenge for the United States. On the macro-level, the trade-offs between economic and security concerns must be balanced. Since access to the maritime system is virtually unlimited, foreign economic and security interests must be aligned with U.S. interests if long-term, effective partnerships in the GWOT are to be achieved. The United States along with other nations and multinational communities have promoted a series of global security measures to secure economic interests. 9/11 and the U.S. GWOT efforts have placed cooperative maritime security policy issues on the international table. Global and regional dialogues have provided a start for solving sovereignty sensitivities and overcoming jurisdictional boundaries, but there is still much to be accomplished. In substantial regard, sea piracy and its concerned mechanisms like the IMB, IMO and ASEAN, have provided a framework for transitioning discussion and security policies from anti-crime to counter-terrorism, especially in Southeast Asia.

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[247] Ammonium nitrate is highly explosive as demonstrated in the 1995 Oklahoma City bombing.

In more terrorist and pirate prone regions, such as Southeast Asia, the United States and powers such as Japan have undertaken capacity building initiatives to improve maritime security and cooperation. By conflating the prevention of piracy and other economically driven crime and with counter-terrorism measures on the tactical level, the interests of the United States and regional actors have been reasonably aligned. Though incentive-based programs and partnerships have demonstrated potential to influence maritime security participation, challenges still remain in ensuring compliance, sharing information and costs, and cooperating in operations. To meet some of these challenges, the United States and other nations have embarked in various operations and training exercises. Sea piracy and its associated tactics have provided much of the impetus for security plans and operational procedures in these maritime environs.

On the home front, maritime security strategists are well apprised of the threat of piracy but until 9/11, the U.S. paid little heed to maritime crime. 9/11 opened America's eyes not only to the threat of terror, but also to the inherent vulnerabilities of the nation. Today, the increase in violence, organization, and technological dexterity of pirates serves as a harbinger of tactics that terrorists may potentially employ. The National Strategy for Maritime Security attempts to thwart all potential threats including piracy, by coordinating foreign, commercial, and government entities into a unified security effort. Much progress has been made, but if the United States is to accomplish the primary goal of preventing a cataclysmic maritime attack, then policy shortcomings must be addressed. America must shrink the immense areas of ungoverned or weakly controlled sea space, must promote maritime security as being in the best interest of all trading partners, must control the accessibility and limit the vulnerability of the maritime system, and must remove the barriers to effective maritime security operations.

APPENDIX A. TECHNOLOGICAL SECURITY INITIATIVES

A.   AUTOMATIC IDENTIFICATION SYSTEM (AIS)

AIS equipment sends vessel tracking information to other ships and shore-based agencies. Currently, AIS has been decreed mandatory by IMO mandatory only on international vessels weighing over 300 gross tons, but requirements expansion is being discussed.

B.   AUTOMATED TARGETING SYSTEM (ATS)

The Custom and Border Protection ATS is located in the National Targeting Center. ATS uses pre-arrival information and intelligence community inputs to identify high-risk targets prior to arrival. ATS standardizes bill of lading and entry summary data received from the Automated Commercial System and creates integrated records called "shipments." Shipments are evaluated and scored by the ATS using over 300 weighted rules and inputs from Customs personnel. The higher the shipment score, the more attention warranted.[248]

C.   DEEPWATER

The USCG bundles its entire acquisition strategy under the *Deepwater* plan. Billed as a system of systems, Deepwater was re-baselined and broadened after 9-11 to meet homeland security needs. In addition to platforms like Fast Response and Offshore Patrol Cutters, helicopters, and airplanes, Deepwater focuses on improving interoperability of all USCG assets and telecommunications systems. In FY2005, the USCG requested an additional $227 million [increase from $1 billion] for C4ISR initiatives to integrate port commanders into the Common Operating Picture (COP) and expand MDA data sharing among participants.[249] Besides increasing membership, the MDA system is also expanding coverage. The USCG hopes to obtain COP coverage out to 2,000 nautical miles by integrating its own Deepwater sensors with other

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[248] Custom and Border Protection. Accessed May 2006. <CBP.gov>.

[249] Calvin Biesecker, "New Deepwater Plan Favors Improved C4ISR," *Defense Daily*, 29 March 2005.

systems, such as AIS and Shiploc.[250] The USCG is evaluating the installation of AIS receivers and other sensors on platforms varying from satellites to UAVs, from buoys to oilrigs, and from commercial airliners to airships.[251]

D. HARBOR CRAFT TRANSPONDER SYSTEM (HARTS) / VESSEL TRAFFIC SYSTEM (VTS)

To further enhance the security of Singapore's port waters, the Maritime and Port Authority of Singapore, Police Coast Guard and Republic Singapore Navy are implementing a system called HARTS. HARTS will enable the security agencies to identify and track the movements of all powered harbor and pleasure craft inside Singapore port waters. The installation of HARTS transponder on harbor and pleasure craft is currently in progress and will be completed by end of Dec 2006. In the United States, the USCG's radar tracking VTS is active in four major ports - New York, Puget Sound (Seattle), San Francisco, and Houston/Galveston.[252]

E. MEGAPORTS INITIATIVE

The Department of Energy (DOE) initiative that installs radiation portal monitors in major world ports is known as the Megaports Initiative.

F. NON-INTRUSIVE INSPECTION (NII)

CBP officers employ Non-intrusive Inspection technologies at ports of entry. Handheld radiation detectors, large-scale gamma-ray, neutron scanning, and X-ray imaging systems, and other tools are used to screen cargo for contraband and WMD's. 100 percent of U.S. ports are expected to have radiation portal monitors by the end of 2006.

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[250] Harvey Simon, "Coast Guard, Navy agree to partner on Plan for MDA," *Aviation Week Homeland Security and Defense*, 12 May 2004, 1.

[251] John Doyle, "Coast Guard Eyes High-tech Needs for MDA," *Aviation Week Homeland Security and Defense*, 13 October 2004, 4.

[252] Maritime Port Authority <www.mpa.gov.sg>; <www.USCG.mil/hq>.

G.   OPERATION DRYDOCK

Operation Drydock seeks to clean up the mariner documentation process by completing background criminal checks before issuing credentials.   Other identification systems are being pursued under the International Labor Organizations Sea Farers Identity Documents Convention 2003, such as a bar-coded biometrics verification system with stored fingerprint details.

H.   OPERATION SAFE COMMERCE (OSC)

OSC is a government-private industry partnership which funds private-sector pilot programs that secure supply chains, validate shipments, or monitor movement and integrity of cargo.   OSC programs are technology-based.   The three largest U.S. container zones - port complexes of Los Angeles and long Beach, Seattle and Tacoma, and New York and New Jersey - have each instituted OSC.[253]

I.   SECURE FREIGHT INITIATIVE

The Secure Freight Initiative seeks to upgrade the information about cargo and contents inside containers.

J.   SECURE-SHIP

Secure-ship is a non-lethal, electrified fence that surrounds a ship when anchored.   The fence uses a 9000-volt current to deter boarding attempts.   The fence contains a tamper alarm which sets off a siren and activates floodlights.   The collapsible fence assembles and dismantles quickly, and includes a gate for launching small craft or lowering a gangway.   The fence is not compatible with flammable cargoes.

K.   SHIP SECURITY ALERT SYSTEM

Ship Security Alert System allows operator to send covert alert to shore in case of an act of violence such as piracy or terrorism. ISPS requires passenger and cargo ships of at least 500 GT to have the equipment.

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[253] "Secure Seas, Open Ports;" Chertoff; "CBP Port Inspection and Surveillance Technologies," <CBP.gov> accessed 22 February 2006; Haveman.

L. SHIPLOC

Shiploc is a tracking system used to recover hijacked vessels. The system uses satellite tracking and can be monitored via the Internet. The system allows crews to send an emergency signal when threatened. There are a number of tracking alternatives on the market; Shiploc is provided as one example.

M. SMART BOX

After containers are inspected, the Smart Box program affixes a "tamper evident" seal and an electronic "tamper deterrence" device to the container door. If the container door is opened after sealing, the Smart Box device will reflect the intrusion.[254] Radio Frequency Identification (RFID) tags are also available for container tracking.

N. SOUND SURVEILLANCE SYSTEM (SOSUS)

The Navy is investigating the integration of its deep-ocean SOSUS and experimenting with shallow water acoustic systems. Integration of operational systems like those being developed to detect submarines is also in the mix.[255]

O. SURVEILLANCE AND C4ISR

Imagery systems and other space-based "overhead" initiatives are being researched by the National Geospatial-Intelligence Agency and Defense Advanced Research Project Agency. Other government agencies such as the Naval Postgraduate School, Lawrence Livermore National Lab, and the Space and Naval Warfare Systems Center are conducting technology assessments, field experiments, and war games to enhance MDA, identify best practices, and educate the maritime community.[256]

In-port underwater surveillance methods, such as robot operated vehicles and stationary inspection stations, are being investigated.[257]

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[254] "Secure Seas, Open Ports."

[255] David Munns, "121,000 Tracks," *US Navy League Seapower*, July 2005, 10-13.

[256] "Maritime Domain Awareness Program," Naval Postgraduate School, 14 October 2005.

[257] Dale Ferriere, "Using Technology to Bridge Maritime Security Gaps," National Infrastructure Institute center for Infrastructure Expertise (2005).

P. UNMANNED AERIAL VEHICLE

There are numerous UAV initiatives being planned by U.S. government agencies such as the Navy and USCG, and private organizations. For example, the *Inventus* UAV is a reconnaissance system which can be launched from land or sea vessels. Inventus sends a camera image back to the ground station allowing real-time surveillance.

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APPENDIX B. LIST OF ACRONYMS

9/11   September 11, 2001 (Terrorist Attacks on the United States)

AIS   Automatic Identification System
AMMTC   ASEAN Ministerial Meeting on Transnational Crime
APEC   Asia Pacific Economic Cooperative
ARF   ASEAN Regional Forum
ASC   ASEAN Security Community
ASEAN   Association of Southeast Asian Nations
ASG   Abu Sayyaf Group
ATS   Automated Targeting System

CARAT   Cooperation Afloat Readiness and Training
CBP   Customs and Border Protection
CMT   Combating Maritime Terrorism
COP   Common Operating Picture
CSCAP   Council for Security Cooperation in the Asia-Pacific
CSI   Container Security Initiative
C-TPAT   Customs-Trade Partnership against Terrorism
CWS   Coast Watch South

DOD   Department of Defense
DOE   Department of Energy
DOJ   Department of Justice
DOS   Department of State
DOT   Department of Transportation
DPW   Dubai Ports World

FBI   Federal Bureau of Investigation
FPDA   Five Power Defense Arrangement
FMF   Foreign Military Financing
FTA   Trade Free Area

GAM   Free Aceh Movement
GDP   Gross Domestic Product
GT   Gross Tons
GWOT   Global War on Terror

ICC   International Chamber of Commerce
ICE   Immigration and Customs Enforcement
ICG   Indonesian Coast Guard
IED   Improvised Explosive Devices
IMB   International Maritime Bureau

IMO	International Maritime Organization
ISPS	International Ship and Port Facility Security
JHOC	Joint Harbor Operations Centers
JI	Jemaah Islamiyah
JIATF-W	Joint Interagency Task Force - West
JWC	Joint War Committee
LNG	Liquefied Natural Gas
LTTE	Liberation Tigers of Tamil Eelam
MDA	Maritime Domain Awareness
MECC	Maritime Enforcement Coordination Center
MIFC	Maritime Intelligence Fusion Centers
MILF	Moro Islamic Liberation Front
MMEA	Malaysian Maritime Enforcement Agency
MOTR	Maritime Operational Threat Response
MPAT	Multinational Planning and Augmentation Team
MSRT	Maritime Security Response Teams
MSSI	Malacca Straits Security Initiative
MSST	Maritime Safety and Security Teams
MTSA	Maritime Transportation Security Act
NII	Non-intrusive Inspection
NM	Nautical Miles
NOA	Notice of Arrival
NORTHCOM	United States Northern Command
NSMS	National Strategy for Maritime Security
NTC	National Targeting Center
NVD	Night Vision Devices
OSAC	Overseas Security Advisory Council
OSC	Operation Safe Commerce
PACOM	United States Pacific Command
PRC	Piracy Reporting Center
PSG	Port Security Grant
PSI	Proliferation Security Initiative
ReCAAP	Regional Cooperation Agreement on Anti-piracy
RMMP	Royal Malaysian Marine Police
RMN	Royal Malaysian Navy
RMSI	Regional Maritime Security Initiative
RPG	Rocket Propelled Grenades
RTN	Royal Thai Navy

SAM	Surface-to-air Missile
SAR	Search and Rescue
SEACAT	Southeast Asia Cooperation against Terrorism
SLOC	Sea Lines of Communication
SOLAS	Safety of Life at Sea (Convention)
STAR	Secure Trade in the APEC Region
SUA	Suppression of Unlawful Acts (Against the Safety of Maritime Navigation)
TCP	Trilateral Coordinated Patrol
TSA	Transportation Security Administration
TWIC	Transportation Workers Identity Card
UAV	Unmanned Aerial Vehicle
UNCLOS	United Nations Convention on Law of the Sea
VAP	Vientiane Programme
WMD	Weapon of Mass Destruction

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